

The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1723.—VOL. XXXVIII.

LONDON, SATURDAY, AUGUST 29, 1868.

(STAMPED .. SIXPENCE,
UNSTAMPED .. FIVEPENCE)

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

MR. CROFTS transacts business in the way of PURCHASE or SALE of every description of stocks, but particularly BRITISH MINES, in no case departing from the position of a broker, at net prices. All orders meet with the utmost punctuality, and advice given as to the nature and eligibility of INVESTMENTS, when required.

HOLDERS of mining shares difficult of sale in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

ROYALTON (Tin).—This mine will soon pay a dividend. Mr. CROFTS recommends the purchase of shares, in which he has SPECIAL BUSINESS.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET,
has FOR SALE the following shares, free of commission:—
50 Anglo-Brazilian, 11s. 3d. 30 Gwynedd, 2s. 9d. 30 Princess of Wales, 4s. 6d.
50 Australian, 11s. 3d. 15 Gt. Retallack, 2s. 9d. 30 Redmoor, 4s. 6d.
(Gold), 17s. 20 Gt. No. Laxey, 11s. 3d. 30 South Darren, 31s. 6d.
55 Chiverton, 5s. 9d. 20 Gt. No. Down, 41s. 3d. 15 St. John del Rey, 220s. 6d.
15 Chilver Moor, 6s. 2s. 6d. 50 Gen. Brazilian, 6s. 9d. 50 Wheal Crebor, 2s. 9d.
30 Chontales, 2s. 9d. 20 Glasgow Caradon, 18s. 3d. 30 Wheal Seton, 2s. 9d.
15 Clifford (calls paid), 2s. 9d. 5 Herodfoot, 2s. 9d. 20 W. P. of Wales, 7s. 9d.
50 Don Pedro, 2s. 9d. 20 Marks Valley, 2s. 9d. 53 Wh. Chiverton, 2s. 9d.
10 East Caradon, 2s. 9d. 30 North Downs, 9s. 3d. 30 W. Chiverton, 2s. 9d.
50 East Grenville, 31s. 6d. 50 New Quebrada, 8s. 3d. 5 Wh. Trelawny, 2s. 9d.
50 Frontino, 15s. 40 No Treskerby, 11s. 6d. 10 West Godolphin, 18s. 3d.
10 Gt. Wh. Vor, 211s. 3d. 30 Prince of Wales, 3s. 6d.

MR. WILLIAM WARD, STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. G. D. SANDY, STOCK AND SHAREDEALER,
No. 48, THREADNEEDLE STREET, LONDON, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHAREBROKER,
19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER,
48, THREADNEEDLE STREET, LONDON, E.C.
Business transacted in the British Funds, Railway and other Stocks, Foreign Bonds, &c., on the usual commission, 1½ per cent. on mining and other shares, above £2; and at £2 and under 6d. per share.
Bankers: London and Westminster, Lothbury.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, AND MINING EXCHANGE.
Has business as a BUYER or SELLER of every description of Market Shares or Stocks, Foreign or Colonial Bonds, &c.

WHEAL MARY FLORENCE.—Mr. J. HUME'S Circular for August contains full particulars and special reports of this rising property, and will be forwarded on receipt of stamp, or on application.
Every description of share negotiated.
Bankers: The London Joint-Stock Bank.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS,
2, BUCKLEBURY, LONDON, E.C.
GREAT SOUTH CHIVERTON.—This mine is progressing satisfactorily, and will soon fully realise all our expectations. We have for a long time earnestly recommended our friends and clients to secure a substantial interest in this property at a low price, and those who have followed our advice can still increase their interest to advantage at the quoted price.

N.B.—BARTLETT AND CHAPMAN are BUYERS of any part of 500 Great South Chiverton shares. Sellers please state number and lowest price for cash.
SPECIAL BUSINESS in Great South Chiverton, West Chiverton, Prince of Wales, Chiverton Moor, Wheal Grenville, Tamar Valley, Great Vor, and Great Laxey, either as BUYERS or SELLERS.
"Investment Circular and Financial Record" post free.
Bankers: London and Westminster.

JAMES H. COCK, STOCK AND MINING SHAREDEALER,
61, OLD BROAD STREET, LONDON, E.C.
BUYER of Great Rhosomur, South Condurrow, North Treskerby, Chontales, and Don Pedro.
A list of prices on application.
Fifteen years' experience in Cornwall and London.

MR. T. ROSEWARNE, 81, OLD BROAD STREET,
LONDON, E.C.

T. ROSEWARNE can advise parties what mining shares they should buy or sell. T. R. has BUSINESS in the following shares, and SPECIAL BUSINESS in those marked *.

Anglo-Brazilian.	East Seton.	Princess of Wales.
*Bedford Consols.	*Frontino and Bolivia.	*St. John del Rey.
*Bedford United.	Gawton.	West Chiverton.
Caldbeck Fells.	Gonamena.	*West Maria and Fortescue.
*Chiverton Moor.	Great North Downs.	Wheal Buller.
*Chontales.	*Marke Valley.	Wheal Grenville.
Devon Consols.	North Downs.	Wheal Mary Florence.
East Basset.	*North Roskar.	Wheal Seton.
*East Carn Brea.	*North Treskerby.	*Yudanamutana.
East Lovell.	*Prince of Wales.	

BEDFORD CONSOLS.—T. R. is a BUYER of any number of shares at market prices for cash or time on; also of Prince of Wales, West Maria and Fortescue, Chiverton Moor, East Carn Brea, and Bedford United.
Money lent upon good mining shares.
Bankers: Bank of England. Office hours 10 to 4.

SPECIAL NOTICE.

Bedford Consols.	North Chiverton.	West Great Work.
Glan Alun.	Rose and Chiverton.	West Godolphin.
Great South Chiverton.	Royalton.	West Wheal Kitty.
Lovell Consols.	Summer Hill.	West St. Ives.

The above list contains the names of several very promising mines, the shares of which are not daily dealt in.
Mr. J. R. PIERCE, 3, Crown-chambers, Threadneedle-street, E.C., has SPECIAL BUSINESS in each of the above.
BUNICK CONSOLS, commencing dividends about January next.—FOR SALE 100 shares, at 20s. per share nett. No further call will be made.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,
BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has FOR SALE the following shares, at net prices:—

20 Bedford Cons., 13s.	20 Lucy Phillips, 22s. 2s.	20 Tamar Valley, 12s. 6d.
20 Chontales, 2s. 6d.	20 Mid-Lovell, 17s. 6d.	20 West Britain, 30s. 3d.
20 Chiverton (ex call), 3s.	20 New Lovell, 17s. 6d.	40 Wh. St. Vincent, 27s. 6d.
30 Caldbeck Fells, 8s. 3d.	30 No. Treskerby, 10s. 3d.	20 West Gt. Works, 36s.
10 Chiverton Moor, 25s. 6d.	30 Wheal Agar, 18s. 6d.	2 Wheal Seton, 24s.
20 Don Pedro, 22s. 9d. 6m.	40 Okel Tor, 12s. 6d.	1 Wheal Seton, 215s. 6d.
5 East Basset.	40 Prince of Wales, 35s. 9d.	2 W. Chiverton, 250s. 6d.
20 East Russell, 4s. 3d.	20 Prince of Wales, 2s. 6d.	50 W. Godolphin, 19s. 9d.
50 East Grenville, 32s.	20 Princess of Wales, 3s.	5 Wh. Mary Ann, 21s. 6d.
5 East Lovell, 27s. 2s.	20 Redmoor, 3s. 9d.	5 Wh. Trelawny, 2s. 9d.
20 E. Carn Brea, 4s. 3d.	20 South Darren, 30s. 3d.	50 Wh. Grenville, 22s. 6d.
20 Gt. Retallack, 23s. 4s. 9d.	50 So. Condurrow, 6s. 3d.	5 Wheal Buller, 24s.
20 Glan Alun, 5s. 3d.	30 Snaefell, 10s.	20 Yudanamutana, 24s. 6d.
5 Great Vor, 412s. 6d.		

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER of the following shares at net prices:—150 West St. Ives; 25 North Treskerby, 11s.; 100 Crebor, 2s. 6d.; 50 West Prince of Wales, 8s.; 5 Hington Down, 17s. 3d.; 90 Gwynedd Park, 2s. 9d.; 5 Great Laxey, 217s. 14s.; 40 East Grenville, 32s.; 2 West Frances, 22s. 6d.; 1 Wheal Seton, 251; 70 Caldbeck Fells, 8s. 3d.; 10 Maes-y-Safn, 220s. 6d.; 80 Okel Tor; 15 Rose and Chiverton; 35 Prince of Wales, 35s. 9d.; 2 West Chiverton, 252; 10 North Retallack; 65 Drake Walls, 10s. 6d.; 40 East Seton; 20 South Condurrow, 11s.; 20 East Carn Brea, 6s. 9d.; 25 Colquhoun and Collington; 50 Glan Alun, 5s. 3d.; 80 West Godolphin; 70 Camborne Vean, 12s. 6d.; 50 East Rosewarne; 50 Don Pedro, 23s. 9d.; 100 Anglo-Brazilian, 11s. 3d.; 25 Yudanamutana, 24s. 6d.; 120 Frontino and Bolivia, 15s.; 40 Fortuna, 21s. 3d.; 20 Cape Copper; 100 Redmoor, 4s. 3d. and 100 Redmoor, 4s. 3d.
BUYER of 40 Bedford United, 80s.; 5 Miners; and 8 Devon Great Consols.

CORNISH AND DEVON MINES.—
FOREIGN GOLD MINES.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Aug. 28, No. 494, Vol. X., price 6d. each copy, forwarded on application, contains information on the following mines:—

West Caradon.	New Wheal Lovell.	Chiverton Moor.
East Wheal Lovell.	Prince of Wales.	Frontino and Bolivia.
North Wheal Seton.	North Wh. Chiverton.	Don Pedro.
North Wheal Crofty.	Great Wheal Vor.	Anglo-Brazilian.
Frank Mills.	Retallack.	United American.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON.
(three doors only from Hercules-passage, entrance to the Stock Exchange).
Twenty-three years' experience.
(Two in Cornwall and Twenty-one in London.)

Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.
PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE, FOREIGN AND BRITISH STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.
Deals in all kinds of Foreign Stocks, and the shares of the various Gold Mines, also in the best Dividend and Progressive Mines.
A Price List sent free on application.
Bankers: Alliance Bank.

MR. W. H. CUELL, Has REMOVED TO 42, CORNHILL, LONDON, E.C.

MR. E. MANUEL BEAZLEY, STOCK AND SHAREDEALER,
3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

WALTER TREGILLAS, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C. DEALS IN ALL STOCKS AND SHARES, either for cash or the fortnightly settlement.
Bankers: The Alliance Bank.

MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS,
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.
BUYERS of New Great Consols shares.

MR. HENRY MANSELL, STOCK AND SHAREDEALER,
No. 44, THREADNEEDLE STREET, LONDON, E.C.

MATTHEW GREENE, STOCK AND SHAREDEALER,
1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.
SPECIAL BUSINESS in Great South Chiverton.
TAMAR VALLEY.—These shares are strongly recommended.

INTENDING INVESTORS.—The "FINANCIAL GAZETTE," published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT OF CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of Investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.
6, Bond-court, Mansion House, London, E.C.
Bankers: Bank of England.

NANGILES TIN AND COPPER MINE.—The Undersigned is a BUYER of FIFTY SHARES, or any less number, FOR CASH. Sellers must state number and lowest price to GEORGE WILLIAMSON, Esq., Warwick Mansions, Brighton, Sussex.
Cash on receipt of transfer, or reference to London brokers, who will carry out any transaction.

CHONTALES GOLD COMPANY.—FULL PARTICULARS OF THE DIFFERENT CLASSES OF SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, AUSTINFRIARS, E.C.

ROYALTON MINE.—ONE HUNDRED SHARES in this mine TO BE SOLD, at 22s. 6d., FOR CASH.
Applications to be addressed to "W. R." MINING JOURNAL Office, 26, FLEET STREET, LONDON, E.C.

THE WESTMINSTER STOCK EXCHANGE,
11, ADAM STREET, STRAND, BUY and SELL, on commission, ALL DESCRIPTIONS OF SHARES. In mines, ROYALTON and MAUDSLI shares are worth buying at present prices, and before a rise takes place.
"How to Invest Money," just published, free by post for twelve stamps.

MR. J. B. REYNOLDS, STOCK AND SHAREDEALER,
No. 71, BISHOPSGATE STREET WITHIN, LONDON, E.C.

Begs to remind his numerous friends of the near approach of the season which in mining districts is invariably marked by great activity. People will soon be returning from country excursions, and devoting that attention to business which throws life into every department. A good harvest, splendid weather, peace abroad and at home, will materially help forward that state of things at once so desirable and wished for. Mr. REYNOLDS therefore cautions the public against sacrificing stock of undoubted merit at the instigation of interested men. He strongly recommends firm holding of that which is good, and immediate abandonment of any which is worthless. There never was a period in his recollection when such fine selection of investments could be made as at present. Mr. REYNOLDS'S Circular for August is now ready, and his views can there be gleaned, he hopes, to the satisfaction of the inexperienced, doubtful, and timid investors.
Established Eleven Years.
Bankers: City Bank.

References exchanged in any part of the United Kingdom. Parties of well-known respectability can have stock prior to payment if desired.

WEST WHEAL KITTLY.
MR. REYNOLDS is still a BUYER of ANY NUMBER OF THESE SHARES, for immediate delivery, at low rates. He has great confidence in the mine, and advises all his friends to average their holdings at present rates. A prompt reply to buyers or sellers, by telegram or otherwise.
70 and 71, Bishopsgate-street Within, London, E.C.

NORTH WHEAL CHIVERTON.—
FACTS concerning this PROPERTY can be gathered on application to Mr. REYNOLDS, who is also prepared with SPECIAL BUSINESS in the Stock.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.

The object of the practical investor is to raise from a given amount of capital the largest revenue from convertible securities in the shortest period of time, and with the least possible risk. To attain this object it is necessary to collect, to investigate all known facts, and to deduce principles which may be more or less applicable under all circumstances. To invest money safely and profitably is at present an unusually difficult task. Erroneous opinions lead to grave errors in practice. It is only on a basis of knowledge and observation, combined with considerable practical experience, that profitable investments can be effected.

Attention is invited to the advantages which this Agency offers for the best investment of capital.
FIVE PER CENT. INTEREST allowed upon DEPOSITS of all amounts withdrawable at one month's notice.

LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.

Bank and Finance Agency Business generally undertaken.
RICHARD TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. CHARLES THOMAS, MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

MR. CHARLES THOMAS has SPECIAL BUSINESS and is PREPARED TO SUPPLY, at the market prices, SHARES in PRINCE OF WALES, WEST CHIVERTON, NORTH CROFTY, SOUTH CONDURROW, DON PEDRO, EAST CARADON, NEW LOVELL, WHEAL SETON, EAST WHEAL SETON, CHIVERTON, SUMMER HILL, EMILY HENRIETTA.

3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps.
MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE PRINCIPAL MINES AND MINING DISTRICTS OF CORNWALL AND DEVON. Published by CHARLES THOMAS, At No. 3, Great St. Helen's, London, E.C.

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE,
LONDON, E.C. (Members of the Mining Exchange), STOCK AND SHAREDEALERS, transact business in all kinds of securities at closest net prices for cash or account.
SPECIAL BUSINESS in Great Laxey, Anglo-Brazilian, St. John del Rey, Snaefell, and East Phoenix shares.
Bankers: London and County Bank.

SAFE INVESTMENTS FOR CAPITAL.
Dividends can be secured 10 to 20 per cent. per annum on outlay.
Read SHARP'S INVESTMENT CIRCULAR (post free).
The August number now ready.
It contains all the best paying and safest investments of the day.

CAPITALISTS, SHAREHOLDERS, INVESTORS, TRUSTEES, Will find this Circular a safe, valuable, and reliable guide, containing every information.
Stocks and Shares of every marketable description bought and sold at the closest market prices.

GRANVILLE SHARP AND CO., SHAREBROKERS,
32, POULTRY, LONDON, E.C. ESTABLISHED 1852.
Bankers: London and Westminster, Lothbury, London, E.C.

Established Fourteen Years.
MESSRS. WARD AND JACKMAN, STOCK AND SHAREDEALERS,
No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.
Members of the Mining Exchange, London.
Messrs. WARD and JACKMAN will forward a correct list of closing prices and statistical information GRATUITOUSLY on application.
August 28. Bankers: London and Westminster, Lothbury.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,
No. 30, GREAT ST. HELEN'S, LONDON, E.C., TRANSACTS BUSINESS in all kinds of Securities at closest prices.
SPECIAL BUSINESS in North Pool, West Godolphin, Summer Hill, New Lovell, East Seton, Minera, and West Maria and Fortescue shares.
Special information in respect to North Pool and West Godolphin Mines.

MESSRS. POWELL AND MOSS, SHAREDEALERS,
beg to inform their friends and the mining public generally that the PARTNERSHIP hitherto existing between them is this day DISSOLVED, by MUTUAL CONSENT.
78, Old Broad-street, London, E.C., 28th August, 1868.

MR. CHARLES ALEXANDER POWELL, STOCK AND SHAREDEALER,
78, OLD BROAD STREET, LONDON, E.C.
Business transacted at close nett prices.
28th August, 1868.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.

JAMES SCOTT AND CO., STOCK AND SHAREDEALERS,
14, PINNER'S HALL, OLD BROAD STREET, LONDON, E.C.
J. S. and Co. are BUYERS and SELLERS, for cash or the account, of shares in any of the undermentioned mines, at quoted or intermediate prices (free of commission):—

Anglo-Brazilian	10s. to 12s. 6d.	Pestarena	2 1/2 to 2 3/4
Frank Mills	13s. 1/2	Port Phillip	1 1/2 to 1 1/2
Bedford United	1 1/2 to 1 1/2	Prosper United	7s. 6d. to 11s. 6d.
Chontales	2 1/2 to 2 1/2	Prince of Wales	1 1/2 to 1 1/2
Chiverton	2 1/2 to 2 1/2	Princess of Wales	2s. to 3s.
Chiverton Moor	6 to 6 1/2	Rossa Grande	16s. 6d. to 19s.
Clifford Amal (call pd.) ..	1 to 2	South Condurrow	1 1/2 to 1 1/2
Devon Great Consols	4 10 to 4 10	South Darren	1 1/2 to 1 1/2
Don Pedro	2 1/2 to 2 1/2	St. John del Rey	1 1/2 to 1 1/2
Drake Walls	2 1/2 to 2 1/2	West Chiverton	61 to 62
East Caradon	2 1/2 to 2 1/2	West Caradon	3 to 5
East Carn Brea	5s. to 7s. 6d.	West Drake Walls	5s. to 7s. 6d.
East Lovell	7 to 7 1/2	West Prince of Wales	7s. to 9s.
East Russell	1 1/2 to 1 1/2	West Wheal Kitty	2s. 6d. to 3s. 6d.
East Seton	1 1/2 to 1 1/2	West Wheal Seton	150 to 160
Frank Mills	1 1/2 to 1 1/2	Wheal Agar	1 to 1 1/2
Frontino and Bolivia	1 1/2 to 1 1/2	Wheal Buller	1 to 1 1/2
Great Laxey	17 1/2 to 18	Wh. Emily Henrietta	29 to 31
Great Retallack	3 1/2 to 3 1/2	Wheal Grenville	1 to 1 1/2
Great Wheal Vor	12 to 13	Wheal Mary Ann	20 to 21
Lucy Phillips	1 1/2 to 2 1/2	Wheal Seton	47 1/2 to 52 1/2
Marke Valley	7 1/2 to 8	Wheal Trelawny	7 to 9
New Lovell	17s. 6d. to 20s.	Wheal Ury	1 1/2 to 1 1/2
North Treskerby	10s. to 12s.	Working	4 1/2 to 4 1/2
North Wheal Crofty	1 1/2 to 1 1/2	Yudanamutana	4 1/2 to 4 1/2
Okel Tor	1 1/2 to 1 1/2		

Money advanced on marketable mine shares at 5 per cent. per annum.

Buyers can have transfers registered prior to payment, if desired, on giving respectable references.

J. S. and Co. having in their employment several of the most experienced and trustworthy mine agents in the United Kingdom, who periodically inspect on their behalf all the bona fide mines in Devon, Cornwall, and Wales, are enabled to accord to their friends and clients reliable advice as to the present and future prospects of mines they deem worthy the attention of investors.

References will be given to the Alliance Bank and the Bank of England.

J. S. and Co. can recommend several good low-priced shares likely to rise considerably in value within a few months.

BEDFORD CONSOLS, EAST CARN BREA, NORTH TRESKERBY, SOUTH CONDURROW.—J. S. and Co. are BUYERS of any number of these shares for cash or account. Sellers will please state number and price.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.

MR. THOMAS THOMAS, ASSAYER, &c., COPPER ORE WHARVES, SWANSEA.

MR. EDWARD BREWIS, 34, OLD BROAD STREET,
LONDON, E.C., has FOR SALE, free of commission, for cash or account:—10 North Levant, 24s.; 20 Chontales, 2s. 6d.; 25 New Beldon, 2 1/2 dis.; 150 East Bottle Hill; 20 Lucy Phillips, 2s. 6d.; 25 Lovell Consols, 6s. 6d.; 130 West St. Ives, 4s. 3d.; 30 Royalton, 20s. 3d.; 10 Union Hill, 2s. 6d.; 45 Chiverton Valley, 24s.; 15 North Treskerby, 10s. 6d.; 100 Glan Alun, 6s.; 110 West Godolphin; 26 Great South Chiverton, 21s.; 35 Don Pedro, 23s. 4d.; 20 Yudanamutana, 24 1/2; 50 Frontino, 14s. 6d.; 30 South Condurrow; 100 West Wheal Kitty, 7s. 9d.; 10 Rose and Chiverton, 24s.
LUCEY PHILLIPS.—SPECIAL BUSINESS at close market prices as BUYER or SELLER.
ROYALTON AND WEST ST. IVES.—BUYERS dealt with to their advantage.

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER
(Member of the Stock Exchange).
No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE,
Bankers: Messrs. Lambton and Co.

MINERAL ESTATE AGENCY IN IRELAND.

MESSRS. R. HODGSON SMYTH AND CO.
MINERAL ESTATE AGENTS AND SHAREBROKERS,
22, WESTMORELAND STREET, DUBLIN.

Original Correspondence.

EMIGRATION—WHERE TO GO.

SIR,—Before taking up the promised review of the countries between which the intending emigrant has to decide, I must briefly notice the papers and discussions bearing on the labour question in the British Association meeting at Norwich. The Rev. Canon Girdlestone well deserves the respect and sympathy of every right-minded Englishman for his fearless outspoken advocacy of the claims of the agricultural labourer to better treatment than he receives at present. If the teaching of Christ and His Apostles has any meaning, surely this firm, unwearied defence and support of the poor, desolate, and oppressed is the holiest fulfilment of the highest duties of a Christian minister. Careless whom he may offend, the Rev. Canon tells the truth loudly and boldly. He proves by figures how the labourer is ground to the earth by his employers, toiling his life's strength out for wages which cannot afford him more than an insufficient supply of the worst food, wholly unable to have a single penny in reserve for sickness or emergency, and driven to the parish the very day he ceases to receive his insufficient dole for work, there to have all trace of independence stamped out of him by the brutal regulations of that abode of misery. Nor is he too often better lodged or cared for than the cattle on the farmer's land; his whole family crowded into a wretched hovel, with no space for the decencies of home life; and unable in his abject poverty to educate his children beyond the little they learn at the Sunday School, too frequently but half understood, and soon forgotten in the "rigour of the bondage" wherewith they serve. Nor has the Rev. Canon been content with denouncing this state of things. His active, benevolent help has organised a system of migration from places where the labourer is worst off to the neighbourhood of manufacturing districts, where the farmers give something like decent wages. The wrath stirred up against him for this Christian conduct is something pitiable and mournful to think of. Tenants and landowners have almost with one accord risen against him, as if he had done each a personal injury by helping his workpeople to better terms of employment. But, if I mistake not, the Canon is not the man to be scared one hair's breadth from his path of duty by this unseemly uproar. All he says of the dead, hopeless apathy of the agricultural labourer is true to the letter, and demands careful attention. Nor are his recommendations of Agricultural Trades Unions, of an organised system of migration, of improved dwellings providing for health and decency, and of that education without which the ploughman is little better than the ox or horse he drives, less thoughtfully sagacious, or less worthy of being well pondered over. I am glad to see a committee is appointed to consider and report upon the subject, and trust the Canon will keep his hand to the work until some real reform is effected where it is so sorely needed.

I am reminded, in thinking over the first things an Agricultural Union should care for, to supplement the few words I said about co-operation by the remark that nothing but good can arise to the workman from substituting cash purchases at a co-operative store for the old credit system of the shops, for which, in many ways, he paid a hundredfold. This is a very different matter from setting up a co-operative trade or manufacture to rival his master, which, as I have remarked, is open to many chances of failure, and when successful is of little or no effect in bettering the relative conditions of men and masters. But the co-operative store should supply him cheap and unadulterated food and necessities, saving his pocket and health, with a most beneficial change as to prudent habits of living.

I see, also, a very interesting discussion as to the whole poor-law system of this Norwich meeting. Something must be done to put down and extirpate the regular rogue and tramp, who makes living in idleness upon the parish his regular profession, before he wholly swallows up the subsistence provided for the really deserving and unfortunate at the public charge. I think the system of making the poor-house such a den of misery as it is, he never can face or endure has proved a failure. The weight of the hardship and discomfort has fallen with cruel injustice on the unfortunate poor, for whom the poor-house is really intended, and the lazy miscreant escapes, or is not deterred by the worst suffering, and flourishes in spite of it. In place, then, of what fails to reform the abuse, and in many ways works evil, it is time the weight of penalty should be directed against the irreclaimable vagrant, as an offender of, perhaps, the worst kind. In this, as in some other cases, sentimental theories of common law, drawn too fine, enable many to escape who are far more deserving of punishment than many treated by the law as criminals. This is one of many similar matters which, we may hope, the working man's element in the reformed Parliament will grapple with, showing vigour and decision in removal or mitigation of the evil.

Returning to emigration, taken up with relation to the country chosen, we may well bear in mind the distinction before drawn between the emigrant going abroad for better wages in his regular employment and he who intends to start afresh, taking up whatever kind of work he can find which offers him the best future prospects. This difference, as has been remarked, to some extent controls his choice of his new country. Another broader line may now be drawn between different lands—those that are so wholly foreign that the settler is entirely alien in language, customs, and religion to the inhabitants of the land; and those where he finds the Anglo-Saxon element as much the ruling power as in the native country he left, with little more change of manners, speech, or customs than may be found in migrating from one end of our island to the other. The former is the case in which the hardship of emigration is most severely felt, and the attendant drawbacks upon the prospects it holds out are the greatest. Few contemplate a residence in such a state of isolation as a permanency, but look forward to a return to their native land after a period of exile. In the case of families these feelings are enhanced by anxiety as to the future of the children, where all chance of education, religious or other, even the very preservation of language and nationality, wholly depend on home influences; and even where the settler is in some degree competent to supply, as far as he can, the want of school teaching, this addition to his many other cares and toils is a severe burthen. These evils are in some degree mitigated where settlers are not scattered over the face of the country, but are in sufficient numbers to form a sort of colony by themselves. Many parts of South America, apart from these drawbacks, afford, from the fertility of the soil, and easy terms on which land may be secured, prospects of speedily acquiring wealth in a well-chosen location. But, except in the Brazils, more or less unsettlement, rendering life and property insecure, prevails over the whole Continent; and, where the frontiers of civilization touch the native populations, their wild savagery is added to the dangers of semi-political banditti. These evils culminate in Mexico—settlement in which may be classed by sane men with the cultivation of a farm on the crater of a volcano. Again, the dangers of malaria, and all the diseases of a tropical rainy season, have to be counted against many localities. Unless he can be helped by some kind countryman, the position of an emigrant stretched in a foreign land upon a bed of sickness is truly desolate. Therefore, when all the expenses of reaching these countries are computed, great as may seem the temptation in some instances, the prudent emigrant will not hazard the venture, but turn to other lands, unless he is taken out by some fixed engagement, in which he has good reason to rely, on satisfactory terms.

Of the countries where English is the prevailing language, and where the institutions and laws of the land are almost identical with our own, all deserving notice, are our colonies under British rule, with the exception of the United States, which from their importance, and the various circumstances of different parts of their immense territory, demand first and special notice. So rapid has been their growth in wealth and population in the last half-century that what was the New World rivals the Old in many of the cities and densely inhabited manufacturing districts. We have before noticed some of the drawbacks on the inducement this condition of things holds out to those seeking better wages abroad in their own special employment, and will now cast a rapid glance over some of the advantages of the country as a resort for the settler starting life afresh. The passage money from the British shores is very light in comparison with that to most other centres of emigration. Fertile land is granted in the Far West on such easy terms that but little money is needed by those who have decided where to go, and push on at once

to the place of destination, not wasting their money by trifling in the port of embarkation. Those who are thrifty and industrious, and have had the good sense to choose a healthy location, being, moreover, what the Yankees call "smart" enough to make the most of everything that turns up, can hardly miss attaining competence, if not opulence, before many years have passed. But the settlers should be aware that many of the most tempting tracts are so scourged by malaria, fever, and ague as to be little better than a certain grave to nine out of ten coming from a temperate climate. Again, there are, as I before remarked, rocks ahead in the future, which may cripple or destroy the former advantages possessed by the country in the race for wealth. They are loaded far more heavily by taxation than ourselves, comparing their capital and resources with ours. They have recently taken up, and seem determined to push to its worst consequences, the burdensome system of protection, from the abandonment of which our country dates its renewed lease of national prosperity. They have an unsound, inflated system of paper currency—unstable under any pressure of trial, and liable in any crisis to collapse like a pricked bladder, perchance when least expected, with some of the worst results of national bankruptcy. And to crown all, political corruption, and the strife of extreme parties, so strain a Government, weak in its radical forms of construction, that whilst all manner of foolish extreme things are done, reckless of consequences, it seems next to impossible to pass any measures for the public good. Every abuse has its defenders; every question is taken up on its bearings upon the balance of parties, and intrigue takes every form, risks all, and does all to carry its point for the day, wholly careless of the future. There are, therefore, many reasons why a prudent man would stand aloof for awhile at least, and not risk all his future in such troubled waters.

Of all our colonies the only ones likely to attract much emigration are Canada and the Australian group, in which we may include New Zealand. Canada is as cheaply reached as the United States, and is, moreover, almost as English as one of our own counties. Hitherto the progress of the country, though steady and progressive, has been very slow compared with that of the United States, and many of the facilities offered to the settler in grants of land at a nominal price have been almost, if not wholly, neutralised by the *red tapism* which would not survey the chosen territory, or make out a title for the settler, until half-ruined and worn out by the delay he gave up the matter in despair. The long winter is, moreover, a great hindrance to the prosperity of this fine country. But the climate is healthy, and I believe most, if not all, of the obstructions above noticed have been removed. The very existence of a free-trade land with low tariffs close to such a hotbed of protection and monopolies as the United States, renders a rapid increase of wealth and prosperity at the expense of the heavily-weighted rivals in trade and agriculture all but a certainty. Accordingly we find the progress of Canada since the troubles of the United States much accelerated, with every good prospect in the future. For a settlement—especially in such a community as we before noticed, in a well-chosen locality, under the guidance of one knowing the country well—Canada just now holds out very encouraging prospects.

The great drawbacks on emigration to our Australian colonies are the heavy passage money, and capital required to work upon to found a fortune. Where these can be secured under the advice and leading of an old experienced settler, building up a fortune may almost be said to be a certainty, and is merely the work of time. For working men, assisted passages, and employment as shepherds and agricultural labourers, at very sufficient wages, may, in most cases, be secured by application to the proper emigrant societies. About gold digging and mining we purposely say nothing. Emigration for these purposes (save on an engagement well secured on satisfactory terms) is a mere venture. Some win—more lose; each speaks of different places as he found them; and changes from riches to poverty, and *vice versa*, in localities as well as with the miners themselves, follow one another almost as rapidly as the slides in a magic lantern.

London, Aug. 28.

A MAN OF EXPERIENCE.

IRON-MAKING—THE SLAGGING SYSTEM.

SIR,—In last week's Journal an account is given of "Lurmann's Slagging System," as if such a system, or one similar, had not been in operation in this country. I beg to inform you that a furnace has been working here for upwards of four months on the closed mouth system, and was built and in operation before Lurmann's furnace was heard of in this country. The furnace is different from Lurmann's, in so far that the dam and tympan are not dispensed with. The slag flows over the dam much in the usual way, and the furnace can be worked with bars, if at any time such should be necessary. Few men having a knowledge of smelting would run the risk of having no mouth in a blast-furnace, as in Lurmann's furnace.

HAMILTON MACVICAR.

Monkland Iron and Steel Works, by Airdrie, Aug. 27.

UTILISATION OF REFUSE COAL AS A MANURE.

SIR,—Your readiness to promote all useful discoveries induces me to hope you will give this a place in next week's Journal. The subject is that of the utilisation of small refuse coal as a manure. All geologists agree that coal is a vegetable; and as it has long been proved that charcoal is an excellent fertiliser, it is surprising that coal should not have been tried as such long ere this, particularly as it is so difficult to procure sufficient manure for the purposes of agriculture. The writer finds that with the addition of a cheap chemical, costing only 5s. to make 1 ton, an excellent manure can be produced, 10 tons of which to the acre will give good results on stiff soils, and produce large crops of wheat and other cereals. The present time is suitable for a trial, as the land is being prepared for sowing wheat, and as abundance of materials are lying waste, it behoves proprietors to try and find how much it will be to their advantage. Should this induce enquiries, I will send you further particulars shortly.

Aug. 27.

R. A.

IMPROVED SAFETY-LAMPS.

SIR,—I have carefully read the description of Messrs. Hann and Son's safety-lamp, as published in last week's Journal, but quite fail to see that practically it possesses any material advantage (without the horizontal gauze, which it is proposed to abandon) over those at present in use. Of course, the horizontal gauze and the mode of admitting the air to it would prevent explosion whilst the lamp remained in perfect order, but I fear it would much complicate the lamp, and render it much more liable to derangement. The object of the arrangement is evidently to permit of the escape of a large portion of the air through the orifices in the rim, opposite the current, in case of a high velocity being attained; but this was done years since in the lamps made for use in sewers by Messrs. Wilkins, of Long Acre, London. But if the sole object be to prevent the full current of air rushing upon the flame, it will be best attained by admitting the main body of air to support combustion from the top of the lamp, as is now done with the Stephenson, which for all practical purposes is an absolutely safe lamp. Whatever may be the object, however, this is not the sole effect of the horizontal gauze, and it seems to me that in the notice of Messrs. Hann's lamp the great point in its favour has been altogether overlooked.

Messrs. Hann are careful, judging from the engravings given, to protect the vertical orifices with gauze, but this I think they will find to be a mistake—they had better be left entirely open, and if double gauze be needed at all let both be horizontal. The top of the lamp should fit well upon the oil-chamber, and I am convinced that it will then be found that the higher the glass or metal be carried within the gauze, the safer will be the lamp. Perhaps Messrs. Hann would state whether, at high velocities, the flame did not rather shorten than otherwise. I think it would; for in a strong current there would be a suck from the rim orifices on the side opposite the wind, which would, I think, more than compensate for any additional wind that could possibly enter on the other side. It is, in my opinion, this sucking current that gives Messrs. Hann's lamp its great safety. The advantage of a horizontal gauze must be obvious to all—the wind never blows directly through it, consequently there is no tendency for the gauze to heat. In an ordinary Davy lamp, the air and fire-damp blowing together upon the gauze really damages it almost as much as a gas blow-pipe, but it appears to me that the use of horizontal

instead of vertical gauze, as the protector, entirely removes the danger.—Durham, Aug. 24.

D. F. J.

"MINING IN MEXICO—No. III."

SIR,—Under this heading in the Journal of Aug. 15, in the report of your Mexican correspondent, there is an error of so much commercial importance that I cannot allow it to pass unnoticed. The statement is highly laudatory of a boiler and engine recently started at the Capula Silver Mines, which are situated in a mountainous district, without roads suitable for the conveyance of mining machinery. The boiler is, in fact, one of my patent combination safety-boilers, of 30-horse power. It is composed of 30 lap-welded tubes, sent out in parts weighing 3 cwt., and having other special advantages both for conveyance and economy of working power. The engine is a double-acting horizontal, of massive proportions, made portable by division of bed, fly-wheel, &c. It is fitted with expansion gear, to ensure economy of fuel under all conditions of load, and is otherwise carefully adapted for difficult mining stations.

The error which I beg the favour of your correcting, by giving a place to this letter, is that this acknowledged success is attributed to Howard's patent boiler, instead of which it should be Jordan's patent boiler, already favourably noticed in the *Mining Journal*.

Aug. 23.

THOS. B. JORDAN.

MINERAL PROPERTIES—THEIR VALUE—No. VII.

SIR,—In my last I pointed out the different kinds of value mineral properties possess. It is very clear that mineral properties are bought and sold without there being any very clear principle in the valuation. The system on which unprincipled promoters have acted during past years is to get as much money paid down as possible. This is evidently a very great mistake on the part of the purchaser, to commence with, unless there has been work actually done that will be beneficial to the future profitable working of the property. Let me try to illustrate the principle of different values of mineral property in a practical way. We have a lead mine which has been at work for years, and is paying profit at the present time. The proprietors want to sell it, and the question is—How much is the property worth? What is its marketable value? It is clear the mine would have two values—the present and the prospective value. The present value would be in proportion to the plant on the mine, and the reserves actually standing. The engine-shaft, let us say, has been sunk 100 fms., cross-cuts driven to intersect the lode, and levels driven on each side of the intersecting point, on the course of the lode, for 100 fms.—the levels being 15 fms. apart in depth, and the adit level 25 fms. deep. This would give us five levels below the adit level. Again, let us suppose the levels driven for 100 fms. both ways on the course of the lode were found to contain on an average 30 cwt. to the fathom. It is an easy matter to calculate how many tons of lead would be obtained from this quantity of ground. Let us take it from the adit level. Then we have 75 fms. in depth, and 200 fms. in length, or 15,000 fms. of ground, which will produce 22,500 tons of lead actually laid open, and known to be there, waiting only to be extracted to be turned into money. The average cost of extracting the lead, after paying rents, wages, and every other necessary expense, has been found to be 6s. per ton, and the lead is selling at 12s. per ton. Here it may be observed that if the price of the metal produced be high at the time the chances of a drop must be calculated on, and if they be low the chances of a rise must be calculated on, because the metal market does not often stand very high or low for any great length of time—at all events, not so long as the quantity of ground we are supposing could be extracted by any ordinary means; therefore, the average of the market for the time past equal to the time it would be proposed to extract the supposed ground in should be taken. In this case let it be 12s. per ton. Here we have 22,500 tons of lead that can be extracted, so as to give 6s. per ton, or 135,000s. clear profit. Then, of course, if it will pay 135,000s. clear profit, it is worth that sum to a purchaser. No, not quite that sum, which a moment's consideration will show. If a purchaser gave that sum for the property, and if all the lead could be extracted in ten years, then at the end of that time he would just get his money back; but what is to become of the interest of the purchase-money for the ten years? If he bought land he would get (say) 4 per cent., and the land would be at its full value at the end of ten years; therefore, the question is—How much principal at 4 per cent. would amount to 135,000s. in ten years? This would be 104,651s. 3s. 3d., the marketable present value of the property. But it has also a prospective value, and this is much more difficult to determine than its actual present value. At the ends of all the levels the lead is as abundant as anywhere, and the question is—What value should be obtained for the lead that can be produced beyond the points that have been laid open? Now we get into difficulties, because no one can tell how far the lode may continue its productiveness, or how soon it may be intercepted by some metal-destroying agency, and be rendered comparatively worthless. The lode may be traced for a great length at surface, and have every appearance of being productive down below, and yet not be so. I well remember at the Melin Llyn-y-pair Lead Mine, which my father was largely interested in, and worked about twenty years ago, that at one point the lode was particularly good, and as it was traceable at surface for a good length, and appeared the same all through, a good run of lead was calculated on; but a different stratum came in after a few fathoms were driven, and that was convulsed, and the lode disintegrated to a large extent. It was not to be observed at surface, so no one could calculate on it. Sometimes slips, heaves, and saddlebacks, or the like, come to surface, and they can easily be traced; but this is not always the case. Therefore, the value of lead or any other metal that is not actually driven through should be made dependent on how it turns out—i.e., the sellers of the mine in question should be paid for their prospective value a certain percentage of the profits obtained beyond the points opened out at the time of sale; or, if the selling parties should wish to be paid down in cash for the prospective value, I can conceive no other method than to take the average length and depth at which lead mines have been profitably worked, leaving always a reasonable margin for chances, and then to calculate the value according to the mode of calculating the present value. However, it is not often that mines of the sort we have been supposing are sold in their entirety; but the very best paying mines, such as Devon Great Consols, frequently change hands in small quantities, and it is as necessary that a common sense and sound principle should be applied to the buying and selling of a small share as to the whole concern; therefore, in buying shares in a profitable mine as an investment the purchaser should ascertain the following facts:—

1.—What is the computed value of the ground actually laid open, and known to contain ore?

2.—What is the average length and depth that mines of this sort have been found to be productive?

3.—How much must be paid per share so as to get the principal back and (say) 5 per cent. interest at the end of the time the mine may be calculated to be exhausted?

Having obtained these facts, the purchaser is comparatively safe. I know the principle by which mining shares are bought and sold is to pay as much per share as will give about 5 per cent. at the present rate of paying profits, and this principle is safe enough, provided the reserves can be calculated to last from fifteen to sixteen years, because then the purchaser would get his money in great part back, while the prospective value—if the mine were not very far exhausted—would make up the rest of the purchase-money together with the interest. The worth of plant must, of course, always be calculated in the above valuation. But there are many mines that have no reserves, and pay no dividends—how are we to value them? This, again, is a very intricate question, because shares are constantly changing hands in this kind of property. The value of these will vary greatly, according to the prospects, the geological situation, and the nature of the lode or lodes that are worked. If the lode has been profitably worked at another part there is all the better chance of it paying, and the price will be accordingly higher; but this class of mines, unless they are far developed, and their prospects good, have but little present value. Theirs is mostly a prospective value, and the question is—How can it be ascertained? If there is plant on the concern, the value of that can be easily ascertained, and many concerns are not worth more than the mere value of the plant. They are the lowest class of mines—places that do not contain any element

of success. With places like these no one would wish to be connected; but there are, doubtless, several mineral properties that do not pay at present, but have very promising prospects for the future. If any clear principle could be laid down as to the buying and selling of properties, or parts of properties, like these it would be a great boon. As there are so many different grades of non-paying mineral properties, from the utterly worthless to properties that have a great many chances of success, it would be difficult to value every property by the same standard. One thing is clear—that the money spent on any property is no criterion of its present or prospective value. Let anyone look over the columns of non-dividend paying mines published in the *Mining Journal* every week, and he will see there three kinds of properties, viz.:—

1.—Those whose selling price is not quoted. This is because no shares have been sold that week, or because they have no marketable value.

2.—Mines whose shares are selling at a discount—the discount varies greatly, some one-tenth, one-eighth, one-fourth, one-half, &c., of the cost price.

3.—Mines that are selling at a premium.

I have noticed for years that the second class are by far the most numerous, and have often asked the question—By what principle were these valued? Another thing is pretty clear, that the value of properties like these is chiefly prospective—i.e., the seller ought to be paid according as the property will turn out in the future. But if the seller wants to be paid at present, how are we to reduce the prospective value to present value? This cannot be done accurately, because success is never absolutely certain in mineral properties until it is attained; but the buyer may be greatly assisted in the matter by ascertaining facts like the following:—

1.—What is the present produce of metal in the different parts of the mine? Every mine agent ought to know this pretty nearly. And what relation does the selling price of the metal bear to the cost of production?

2.—What is the average number of mines that have paid in the same stratification, and under the same circumstances, as the one in question?

3.—What are the points that remain to be proved—such as the junction with other lodes, &c., and how have points like these turned out in other mines similarly situated?

I cannot see any other mode of valuing mineral property than by taking a fair average of the mines which have paid under similar circumstances, or that they should be valued according to their chances of success. Let us suppose that one mine in five pays. Then, if a person buys one mine, his chance of success is one to five; if he buys two mines, his chances of success are two to five, and so on.

In my next I will notice the mode of valuing collieries and slate quarries.

SAMUEL JENKINS.

REFORM IN MINING.

CERTIFICATES TO MINING CAPTAINS.

SIR,—If any of your correspondents on this subject would direct their attention to the first and most important point of all—the practical development of the mines themselves, and to the class of men who, in many instances, are entrusted with the sole supervision and direction of the underground workings, and concentrate observation upon a few of the many "bal cap'ns," it would be found that the majority are a proud, conceited, lamentably ignorant set of men, no more fit to direct underground operations, among the intricate and capricious bearings of the many lodes, cross-courses, slides, flookans, &c., always to be found in every mine, than they are to complete a work of art for the Royal Academy.

Cap'ns, or agents, are chosen, and properly so, from among the working miners; but what is the necessary qualification? Frequently none at all, beyond the interest of an old comrade, who has had the luck to be "put in cap'n" previously. The general plan is to choose a man who has worked both on tutwork and tribute, who has assisted in sinking shafts, and afterwards become pit or timber man. What does this man know about the systematic plan of working for the full exposition of the mineral veins contained in a tract of land, or what can he tell you of the probabilities of finding mineral treasure in a new field? What does he know of the geological construction of any rock, of the component parts of any mineral, or of the qualities of lodes? Or what does he know even of the rudiments of the use of the dial and quadrant, beyond having held the chain for some "Cap'n Will," who dials periodically for several mines? and who, let me tell you, is very conceited and mysterious over his business, never for a moment sacrificing his dignity and knowledge to the enlightenment of an assistant.

The newly-chosen captain or agent is, in all probability, sent into an entirely new district, perhaps in a totally different part of the country, to work for a different mineral, in a different stratum; and to this man is left the entire management, control, and responsibility of opening a new mine, fixing the site of water or steam engines, laying out dressing-floors, &c., and conducting the operations of a company. For the first two or three years all is promise and expectancy. (Who, in his native brogue, can speak more glibly, or hold out more signs of immediate or early success, than your Cornish agent of the class I wish to speak of?) At the end of this time, I say, it is too often the case that both the main shaft and engine are found by an experienced mining engineer to be exactly in the opposite place to where they should be, and the manager without even a plan of the underground workings!

Now, this is the ordinary type of a vast number of men chosen from large mines, and immediately employed as managers of new ones. If such a man be able to judge properly the nature of the rock he has to attack, and can tell what men ought to be paid for its excavation; if he can put in pitwork, and in addition perhaps make a wooden wheelbarrow, he is considered efficient. The two former qualifications are, of course, absolutely necessary, but how much more is requisite when he accepts the sole management? The agent I have endeavoured to portray here is a very common one; at the same time, far more capable than many who obtain such situations.

You must clearly understand that I do not mean to insinuate that Cornish mining agents as a body are ignorant and inefficient, as I know full well that there are men in Cornwall occupying such positions who, being educated in a superior manner, are thoroughly competent to undertake and successfully carry out the most difficult mining engineering, and scientifically prove any extent of mineral land that may be trusted to their charge either at home or abroad; men who are found in every part of the world to be the most able and best qualified to carry out mining operations, and are a credit not merely to the county of Cornwall but to the name of England itself. This class, however, is not a large one, and many who have had the intense good fortune to find a course of ore staring them in the face when entering upon their management are too often considered clever and competent, because they have a rich mine, and obtain very ordinary mining ability can properly break and bring to surface the produce of a vein of ore, but the one entitled to credit is he who first discovers it in the vein. How many levels are discontinued because the agent fancies the lode looks "unkindly"? How many are continued on account of the opposite supposition? Then, again, how many mines have been abandoned by one party, who have driven a few feet of a deposit of ore, and so left riches for the successors? Instances have been known where a mine has been wholly worked by the side of rich courses of ore; the workings, having all been made upon one part of the lode, mistaken for the main part, being wholly unproductive; whilst a short right-angled drive would have discovered all!

The position of manager of a mine is one of great trust, responsibility, and unlimited control. He has under his immediate command miners, carpenters, smiths, masons, engineers, and labourers. He has the ordering of supplies of almost every description, and he has frequently no check whatever upon the monthly cost-sheet he sends up to London, nor upon the payment of it. In a word, he is the only person the shareholders have to look to in everything; and it is upon his statements, upon his judgment, on his capability, and on his honesty, they have entirely to rely that their money is judiciously and properly employed to their advantage, and in the economical development of the resources of the property entrusted to his charge. He is the only one who really knows what has been met with under-

ground, and he can, if he be so inclined, either exaggerate the value of any treasure, or hide it altogether. Even a well-informed and careful inspecting agent is always more or less in the hands or at the mercy of the resident manager. Beyond the different ends or extremities of a mine the inspecting agent can learn nothing in a day's inspection without the aid of the one who knows what has been passed through in the different drivings. It is possible when going along a level, with air-sollars under your feet, that you may be walking over a rich branch of tin or copper, although you may be told that all along here the lode was small and poor.

Having shown you what a position of trust the mine manager holds, I now come to the question of salary. What does your agent get? 200*l.* to 300*l.* a-year? No; he receives 75*l.* to 100*l.* a-year! So this man, suddenly elevated from the position of a labourer to a situation of immense trust and responsibility, with all the temptations and seductions of solicitors for orders thrown in his way, the free access to all kinds of stores and materials, with the handling and disposition, perhaps, of 300*l.* or 400*l.* per month (generally so when out of Cornwall), who is expected to know everything connected with mine management, and be able to commit his ideas to paper and communicate with his employers, &c., only receives the wages of a journeyman carpenter, or, in many instances, less than the tributer who works under him! There are many men who prefer to work as tributers rather than be elevated to the responsible, but un lucrative, position of captain.

I would urge that all candidates for the office of mine managers should first pass an examination before the Miners' Association or School of Mines, and receive a certificate of qualification. Possessors of these testimonials of efficiency would be in eager demand, and should then command a fair remunerative salary. The increased salary would be a strong inducement, and a better informed class of men would be the result. When such a reform is effected in this principal department of mining we shall have to deplore fewer instances of capital wasted, shareholders disheartened, and promising sets prematurely abandoned.

You, Mr. Editor, have seen the mining interest within the last ten years under a variety of phases, both prosperous and unprosperous, with an intermittent state of flickering, and I think you will not fail to notice that there is now a promise of an early return of activity and increased patronage, but it is, and will be, under different circumstances to the past. Reform in mining is going on very rapidly, though perhaps little observed, and a new era is dawning upon the pursuit, which, when stimulated with one or two instances of unmistakable success, will bring forth its features so prominently that mining investment will no longer be in the rear of public approval, but will obtain a fair share of that enormous capital which now remains unemployed in this country.

T. E. W. THOMAS.

Great Winchester-street-buildings, E.C., Aug. 25.

THE MINERA MINING COMPANY (LIMITED), AND THE WHEAL SETON MINING COMPANY.

SIR,—The MINERA is a lead-blende mine, situate in Denbighshire. We have before us the annual report of this company, issued to the proprietors on Aug. 7, and have never known anything in the annals of mining enterprise so refreshing, satisfactory, and encouraging to cheer the miner in his laborious and speculative path to success. When the company was first started there were many difficulties to be overcome, and but for the energy and skill of the executive and the promoters it is far from improbable that they would never have been surmounted. The able report of Mr. John Taylor, the company's engineer, explains fully the great extent and resources of the property, the many points of prospective promise, and the apparent certainty of a permanent career of success. The sett is very extensive, and capable of extended development, and with fair prices for lead and blende the profits must greatly increase. The returns for 1863 were 6826 tons of lead and 710 tons of blende, which realised 93,101*l.* 4*s.* 4*d.*; and for 1864 the yield was 6822 tons of lead, and 1179 tons of blende, which realised 103,293*l.* 5*s.* 6*d.* For these two years the expenditure on the works for labour, materials, stores, taxes, &c., were respectively 31,962*l.* 19*s.* 10*d.* and 33,699*l.* 0*s.* 11*d.*, showing an increase of costs of only 1736*l.* 1*s.* 1*d.*, against 10,192*l.* 1*s.* 6*d.* excess of money realised during 1864 over that of 1863. The average price of lead for the two years was 13*s.* 6*s.* 8*d.* and 14*s.* 7*s.* 1*d.*; and for blende, 2*s.* 18*s.* and 4*s.* 11*s.* 1*d.*. The price of the latter advanced in 1866 to 4*s.* 14*s.* 11*d.*, since which it has receded to 3*s.* 16*s.* 5*d.*. The prices of lead ores since June, 1864, show the following decline:—1865, 13*s.* 13*s.* per ton; 1866, 13*s.* 8*s.* per ton; 1867, 12*s.* 14*s.* 4*d.* per ton; and 1868, 12*s.* 2*s.* 4*d.* per ton. The yield for 1868, to June 30, was—lead ores 5816 tons, and blende 2466 tons, realising 79,871*l.* 6*s.* 2*d.*. The costs for 1864, as shown above, were 33,699*l.* 0*s.* 11*d.*, against 36,744*l.* 2*s.* 5*d.* for the year 1868. The falling off in the price of lead and blende during the four years amounts to 14,831*l.* 19*s.* 6*d.*—13,013*l.* 6*s.* for the former, and 1818*l.* 13*s.* 6*d.* for the latter—equal to 40 per cent. upon the dividends of 37,350*l.* per share declared during the past year. It is, therefore, evident that these mines have suffered severely from the commercial stagnation of the times, and that with the revival of trade and the renewal of confidence, this important property, which shows such vitality and vigour in its yield, will exhibit far more brilliant results. The reserves of lead ores underground are estimated at 14,516 tons, which, valued at 12*s.* 2*s.* 4*d.* per ton, the average price for the past year, amounts to 175,885*l.* 10*s.* 8*d.*, exceeding the previous annual estimate by 856 tons, of the value of 10,371*l.* 17*s.* 4*d.*. The reserves of blende are not referred to in the report, but we may fairly assume them to be fully 6000 tons, equal to a further sum of 18,000*l.*, raising the reserves to the enormous sum of 193,885*l.* 10*s.* 8*d.*; to which must be added value of plant and machinery, 14,721*l.* 10*s.* 3*d.*; stock of lead ores and blende at surface, 5762*l.* 4*s.* 3*d.*; stores, 995*l.* 7*s.* 1*d.*; dead rents recoverable from further dues, 3414*l.* 9*s.* 4*d.*; ordinary trade debts, 877*l.* 7*s.* 11*d.*; 9000*l.* Victoria and Canada Bonds, quoted 113 to 115, and 103 to 105 per cent., cost the company 8904*l.* 17*s.* 4*d.*. The market value of the property is 315,000*l.*—1800 shares (25*l.* paid) at present price of 175*l.*

The following particulars respecting this property may, probably, prove interesting to your readers. The returns commenced in 1852, when they were 1230*l.*, and in 12 years increased to 103,293*l.*, after which they diminished in 1865 to 93,410*l.* 7*s.*, in 1866 to 81,648*l.* 18*s.*, in 1867 to 72,095*l.* 11*s.* 6*d.*; in 1868 they advanced to 79,871*l.* 6*s.* 2*d.*. The promoters of the company were paid the sum of 7500*l.*. Royalties on minerals sold amounted to 82,520*l.* 14*s.* 8*d.*; costs, wages, and materials, 455,277*l.* 5*s.* 5*d.*; and the dividends, 420,541*l.* 5*s.*. The future prospects are evidently brightening. The report is fraught with promise, the management sound and practical, and we may fairly expect the market value of lead and blende to advance, while the cost of production will continue comparatively stationary.

WHEAL SETON has been a prosperous company since the year 1848, although the amount of gains has not been large. The price of shares has greatly fluctuated—at one time almost unsaleable, from whence they advanced rapidly to 800*l.*, and even above. The dividends in the aggregate amount to 2547*l.* 15*s.* per share, and the capital called up 23,166*l.*. The market value at present is 50*l.* per share—say, 20,000*l.* for the entirety. The returns for the year 1867 were—

Copper, 5054 tons 4 cwt. 1 qr.	£19,812 5 11
Tin, 46 tons 0 cwt. 1 qr.	2,433 11 5
Arsenic, 65 tons 10 cwt. 2 qrs.	157 3 9 = £22,403 1 1
Dividends, 17 <i>l.</i> per 1-36th share, 6732 <i>l.</i>	
Costs and merchants' bills, including 200 <i>l.</i> on account of new engine £3114 18 10	
Ore sold to July 31	£2344 0 8
Deduct royalty	222 18 8 = £3121 2 0
Add carriage	3 16 0 = 3124 18 0
Profit	£ 9 19 2
Balance of club	£ 0 5 10
Balance last audit	1733 14 11 = 1734 0 9
Balance in hand	£1743 19 11

The report states the lode in the 190, west of Tilly's shaft, yields 2 tons of copper ore per fathom. The 190, east of Eustice's winze, yields 3 tons per fathom; this point joins the 190, west of Tilly's, in 6 fathoms driving, so the forebreast here is defined. The lode in the 180, west of Tilly's, yields 5 tons per fathom. The 170, 160, and 150 fathom levels are of no value, although containing small quantities of tin and copper ores. The back and bottom of the 170, east of Tilly's, are being stoped away; and two stopes are at work in the

back of this level, west of Tilly's shaft. Two stopes are at work in the back of the 180, west of Tilly's shaft, whilst the backs of the 150 and 140 fathom levels are being stoped chiefly for tin, and are valued respectively at 12*l.* and 8*l.* per fathom. Tilly's shaft is sunk on the course of the lode 3 fathoms under the 190, but it is not at present of any commercial value. An outlay of 2594*l.* has been incurred, spread over the past eight months, in opening out the north part of the company's sett, but all that can be said in its favour is that the situation is good, whilst the success at Emily Henrietta, and the run of ground stretching eastward, are encouraging. The old mine, however, is being worked rapidly, and should the bottom become poor, the 170, 180, and 190 fathom levels will soon show signs of exhaustion. It is worthy of notice that as the ore makes evidently westward, development cannot prove rapid, Tilly's shaft being too far eastward to admit of extending both ways. For all practical purposes the returns are half only of what they would prove to be had Tilly's shaft been 50 fathoms further west. The assets of the company consist as follows:—

T. H. Tilly, deceased, 282 <i>l.</i> 13 <i>s.</i> 5 <i>d.</i> , valued at	£ 58 3 1
Tin and other metals sold	432 7 6
Sublet advanced to tributers, &c.	731 15 0
Petty cash	12 0 0
Income tax account	55 16 4
The British Arsenic Company	7 0 6
T. M. Williams & Co., 865 <i>l.</i> 11 <i>s.</i> 5 <i>d.</i> } bankers	1899 3 10
Williams and Co., 1033 <i>l.</i> 9 <i>s.</i> 5 <i>d.</i> }	
M. C. Seton and Sons	0 0 3
Paid Statutory assessment, not charged	8 0 8 = £3904 7 2
The bankruptcy of Hawkey and Co.	£2602 12 <i>s.</i> 1 <i>d.</i>
Debits of the company—	
Merchants' bills	£ 738 11 6
As per cost-book	4246 12 0
Royalties	739 16 10
Poor rates	20 0 0
Surgeon's pence	65 9 3 = £3981 9 7

It appears to us that this company stands at the close of June month, as audited on Aug. 10, to be in debt the sum of 5981*l.* 9*s.* 7*d.*, to meet which there are assets amounting to the sum of 3201*l.* 7*s.* 2*d.*, and a claim of 2602*l.* 12*s.* 1*d.* against the estate of Messrs. Hawkey and Co., winding-up in Bankruptcy. This is a very different reading of the account from that published as representing the receipts and expenditure, which, in fact, shows a credit balance of 1743*l.* 19*s.* 11*d.* as available for future purposes, instead of a debit balance of 2777*l.* 2*s.* 5*d.*, the difference between the outstanding obligations and the gross amount of assets appertaining to the company.

R. TREDINNICK, Consulting Engineer.

Crown Chambers, Threadneedle-street, Aug. 24.

THE PROSPECTS OF HOME MINING.

SIR,—The question is continually asked—Why do the mines in Devon and Cornwall not pay such dividends as formerly? The answer is very clear: no new mines of any consequence have been discovered during the last ten years, and the majority of the existing mines have become very deep and expensive to work. The high rate of dues demanded in some districts prevent capitalists from embarking their capital in opening up any new mines. About seven years, on an average, is the time required to open up a mine to pay regular dividends—in fact, some mines take a much longer time than others. Capitalists, in general, wait till some discovery is made, and then rush pell mell into the market, and pay fabulous prices for the stock, which they might have had at a twentieth part of the market value a few months previously. All great deposits of minerals, particularly those of copper, present some indication a few fathoms below the surface in places. The first indication of importance is the discovery of gossan, in a well-defined vein or lode; then the black and green oxide of copper, with mundicor pyrites, under which the grey and yellow sulphurets of copper are invariably found, commonly or technically called a bunch of ore, but the bunch may yield 50,000*l.* in value, or twenty times the amount.

The drop in the price of copper some three years ago caused many mines to suspend operations—the standard for copper ore in Cornwall and Swansea fell from 118 to 95; the unit in Liverpool from 17 to 18 to about 12. This serious drop caused several large mines in Cuba, Australia, &c., to become very losing concerns, instead of dividend mines, as heretofore. New discoveries and shallow mines are the stock capitalists should seek for investment. Some of the copper mines have paid the original proprietors fabulous profits. The DEVON COSSOLDS, with an outlay of 1*l.* per share (or 102*l.*, in 1021 shares), paid in about 20 years a million sterling in dividends, but many mines in Cornwall have yielded a much greater return still, and with as little outlay. Such mines were discovered by driving levels across the country, but this sort of mining, of late years, has been abandoned, and very large sums of money expended in re-opening up old mines of very great depth, hence so much capital has been lost. The great copper mine in Anglesea, it is in history, returned 80,000 tons of copper ore annually for 50 years; but, like other deposits, it has had its day, and now there is nothing left but the wreck of a former great existence; this may also be said of the great mines in Cuba, Australia, &c.

Mines, generally speaking, can be worked at one-third or even one-fourth the cost in this country to what they can in unhealthy countries. Tin mines do not pay such profits as copper, partly on account of the great expenses in the returning charges. A rich deposit of copper has been raised on tribute at 1*s.* and 4*s.* in 1*l.*, and occasionally I have known it in Cornwall at 3*d.* in 1*l.*. OLD WHEAL VOR returned in 30 years 3,200,000*l.*. During that period tin was scarcely ever above 40*l.* per ton; the present price is about 55*l.*, but previous to the panic of 1866 the price of tin was 10*l.* per ton, and the ore was from 80*l.* to 90*l.* per ton; but very few foreign tin mines can pay the adventurers to raise this metal at the present price; this applies also to the copper mines in Chili, &c. New mines at home should now be sought after, and no safer or better investment can be found where ground is well and cautiously selected, and the rent or dues arranged to meet the altered times.

Aug. 26.

PARAFFIN, AND PETROLEUM OILS.

SIR,—The appalling accident on the Chester and Holyhead Railway from the explosion of paraffin oil caused by concussion, necessarily gives rise to the question of railways carrying such inflammable material upon their lines, and as these products are comparatively little understood by the public generally a few remarks upon the subject may not be uninteresting. Paraffin oil is an extract from the Cannel coal (found in England, Scotland, and Wales) distilled. The localities producing the most are Staffordshire in England, Boghead in Scotland, and Padeswood, near Mold, in North Wales; also in New Brunswick, Canada, and the United States.

The following is the process of manufacture:—The mineral is placed in a retort resembling a gas retort, surrounded with fire, which bakes the coal without flame. The vapour which rises is received into a long iron tube or condenser, which, when coming into contact with the cool iron, forms itself into a liquid about the consistency of thin treacle. This production is run into large cool vats, on the sides of which paraffin scales are formed, collected, pressed in bags, bleached white, and manufactured into beautiful paraffin candles, vestas, &c. The crude oil, after the paraffin has been extracted, is run into a still, heat is applied, and a light spirit runs off. Then comes burning oil, commonly called paraffin oil, afterwards lubricating oil, used for machinery purposes; also mixing with, and adulterating other oils. The residue in the still is thick grease, used for colliery purposes and mixing with common grease, or converted into a common pitch, which is largely used on the Continent for asphalt, &c. The spirit is run into a vat and bleached with chemicals and the sun, and is then sold under the name of paraffin, shale, or mineral spirit by the manufacturer, and to the public under the name of kerosene, benzoline, and many other fictitious names. This spirit is very inflammable, and if exposed near to a light (say 12 in.), it will take fire and burn with the greatest rapidity. Recently a lamp packed with sponge or cotton has been found to be the safest for burning this inflammable material. It is largely used as a substitute for turpentine, and in the manufacture of cheap varnish, by india-rubber manufacturers, cleaners of gloves, &c., and among the great variety of its uses, common champagne and brandy have not been excepted.

Railway companies and carriers should have the correct name of this material given, in order that proper care and attention should be taken in its transit. The burning oil is the next running from the still after the spirit has been obtained, and is passed into a large vat, and treated with soda crystal, sulphuric acid, &c., bleached white, and sold to the trade as paraffin oil. Many of the shopkeepers retail it to the public as petroleum, paraffin, rock, Burmese, &c. This oil is safe unless it is mixed with the spirit above described. The lubricating oil is the third running from the still, and has already been described. The Boghead, 120 gallons; New Brunswick, 110 gallons; Staffordshire, 35 gallons; Breckenridge, 100 gallons.

These oils were distilled and sold before the discovery of the oil wells in America, and the erection of works took place in North Wales and Scotland for the manufacture of paraffin oil, &c. Trade was carried on to a considerable extent, until the large imports to this country during the last ten years caused prices to decline so low that many British makers were compelled to suspend their operations. The petroleum oil found in the United States is a similar production to the crude oil from the Cannel coal which has been previously mentioned. The American petroleum is a little more volatile than the British paraffin oil, but this will not explode unless it is brought into direct contact with fire. From a remark made in the *Oil Trade Review* of Saturday last, I see the material that caused the fire was called paraffin oil, made from Welsh curlew Cannel coal. Had the trucks which came in contact with the passenger train contained spirits of turpentine, methylated spirit, spirits of wine, camphine, and a variety of articles of similar character which are carried daily over most railways throughout the kingdom, the result might have been the same. The fact is the trade both in paraffin and petroleum oils has increased to an enormous extent—for instance, the shipments from New York up to July 31 this year were 27,643,319 gallons, as compared with 17,264,313 last year.

Of the former there are small quantities taken in transit over the railways in comparison to the enormous amount of paraffin and petroleum. An accident would be as likely to ensue in the event of a collision with any of these combustible commodities.—*The Exchange, Birmingham.*

ARTHUR ROBOTOM.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending Aug. 23 amounted to 10,573*l.* 3*s.* 1*d.*

Meetings of Public Companies.

BRYNPOSTIG MINING COMPANY.

An ordinary general meeting of shareholders was held at the Dudley Arms Hotel, Dudley, on Monday, Mr. JOB TAYLOR (Mayor of Dudley) in the chair. Mr. S. H. KOUGH (the secretary) read the notice convening the meeting, and the minutes of the last were approved. The revenue account showed a profit upon the five months' operations of 350*l.*, and the ore sold during that period realised 1614*l.* The report of the manager, Capt. John Kito, was as follows:—

Aug. 24.—Since our last half-yearly meeting we have completed the sinking of the new engine-shaft to the 24, and have driven the said level 11 fms. east and about the same distance west on the course of the lode. The eastern driftage has been, on the whole, the most productive, and will yield at present 15 to 20 cwt. of ore per fathom, which in easy ground, such as we have, will pay well for working, and leave a good profit. It will be remembered that at the 12, 8 fms. east of shaft, the lode became suddenly disordered by a small cross-course, and split into branches, but at the 24, notwithstanding we have driven 11 fms. from shaft and 3 fms. east of same cross-course, there is not the slightest sign of such a change, and the lode still maintains its size and character. Another excellent feature in connection with this level is the fact of its having drained all the water from the 12 fm. level to the present forebrest, which is still fully 30 fms. in advance. The lode in the 24, west of shaft, is about 4 feet wide, and interspersed throughout with lead and blende, but at present is not rich; the best run of ore ground that we have had in the 12 is still in advance of this (24) end, but I expect shortly to reach it, and am anxious to do so, as I believe it will materially assist us in our returns of ore. We have two rises in roof of the 24, one east and the other west of engine-shaft, both of which are opening up good tribute ground, and will yield about 10 cwt. of ore per fm. The 12 is driven east of engine-shaft upwards of 40 fms., and since the last meeting the driving has been continued on the south part of the lode, but before driving it further in the same direction I think it will be advisable to cross-cut north, in order to ascertain if we are on the main part of the lode or otherwise; we have lately intercepted a beautiful cross-course in this drive, which I think in deeper levels will have a very beneficial influence on the lode. We have two tribute pitches at work in roof of the 12, and a winze is being sunk below by four men, at 55*s.* per ton. It may be well to remark, in conclusion, that from above the 12 we have raised and sold nearly 3000*l.* worth of ore, as may be seen from the balance-sheet, and when we remember that half of this ore ground between the adit and the 12 was taken away by the old workers, and that we can without difficulty deepen our mine at the rate of two levels a year, I think it will be regarded as a safe guide for the future, and the best guarantee that can be given of the success of the undertaking.

The CHAIRMAN said it afforded him much pleasure in meeting his co-proprietors upon the present occasion, because it gave him an opportunity of congratulating them upon the gradually improving position and prospects of their already attractive property. Unlike most enterprises formed for the purpose of developing mineral properties, the Brynpostig executive, in accordance with the expressed sanction of the shareholders, had, so to speak, capitalised the ore—that is to say, instead of crediting the revenue account with the amounts realised by the sales of ore, they had been employed in the extension of operations, and in placing the mine in an effective working condition. Had the course usually adopted been pursued with regard to Brynpostig, and which, perhaps, after all, was the most judicious for the development of mineral properties, we should have had, at least, the fairest for the property. Had the plan been adopted in their case, the Brynpostig balance-sheet at the present time would have shown a good round sum standing to the credit of profit and loss. The balance-sheet showed that upwards of 3000*l.* worth of ore had been sold during the past twelve months, and the manager would inform them that the whole of those returns had been made from above the 12 fm. level. Some time since he computed that the returns from above that point of operations would realise about that amount, and, therefore, he need hardly say it was especially satisfactory to him that he had anticipated his calculations. As a further confirmation of the opinion he had always entertained as to the value of their property, he might direct attention to the fact that the lode in the next level—the 24—had, so far as developed, proved itself far superior to what it was in the level above, the improvement being at least equal to that which was found to have taken place from the adit to the 12 fm. level—thus practically proving that increased depth meant augmented value. He would not, however, detain them by any further remarks, but would much rather invite the shareholders to obtain from their manager, who was present for that purpose, every item of information they deemed necessary as to the position and prospects of their property, for he (the Chairman) was fully convinced that the absent shareholders had but a very imperfect idea as to the intrinsic value of the property they possessed. (Hear, hear.) He then moved that the reports and balance-sheet be received and adopted.

Mr. WILLIAM PEARSON, of Stourbridge, said he could endorse all the Chairman had stated as to the merits of the Brynpostig Mine; indeed, had the Chairman so desired, he might have pointed out the fact that the former workers had removed half the stuff from between the 12 fm. level and the adit; and, as the present company had realised 3000*l.* for the ore sold from that point, it was but a fair computation—the more especially as the 24 had, so far as developed, proved superior to the 12—that, even taking the same scale of production, four times the amount of ore would be extracted from between the 24 and the 12 fm. levels, in which case they would realise 12,000*l.* instead of 3000*l.* His own opinion was that at no distant day Brynpostig would successfully vie with the Van Mine, which was at the present time returning 100 tons of lead ore per month, although only 15 fms. below adit. One important feature in connection with Brynpostig was the fact that, although the present company had been at work not more than about two years, it had really divided 2000*l.*, and, in addition, sold 3000*l.* worth of lead and blende, equal to 45 per cent. upon the capital of 9200*l.*

Mr. JOHN OWEN (of Dudley) said that had the directors appropriated the amount of profits realised by the sale of ore for the purposes of dividend it would have been equal to 25 per cent. upon the capital expended, while 20 per cent. had been received from the sale to the Mid-Wales Company, which together made the amount 45 per cent. Capt. JOHN KITO (the manager), replying to questions from different shareholders, stated that when he first became connected with the mine it was represented to him that some excellent ore ground had gone down below the adit level; but he did not feel himself justified in putting up the necessary machinery before he had thoroughly satisfied himself that the reported ore ground was actually there. He accordingly sunk the old shaft to the 12 fm. level, and put out a cross-cut. They continued to drive through ore ground varying in productivity from 5 cwt. and 6 cwt. to 2 tons per fathom, for no less a distance than 50 fms. in length. When he found this was the case, he felt himself justified in recommending the directors to incur the expense of sinking a new engine-shaft from surface, which was necessarily a long and expensive work. That shaft was sunk through ore ground to the 24 fm. level, and the driving, which had been extended east and west for about 11 fms. in either direction, proved that the lode was in productivity, and particularly to the east of the shaft. It was found in the 24 fm. level, at about 8 fathoms from the shaft, that the lode was split up into branches, but at the 24, under the same point, there was no sign of any split in the lode; one of the best features in the 24 was the fact that it had drained the 12, the end in which level had intersected a beautiful cross-course, which really almost amounted to a lode—in fact, he believed it would turn out to be a north and south lode. They had driven 2 or 3 fms. upon its course, and it maintained its bearing and underlie as regularly as any lode he had ever seen. It was lying east, and it looked as if the ore ground were lengthening under it. He had no hesitation in saying, from present appearances, that the ore ground would considerably lengthen, and he had no doubt that the cross-courses would have a very important and beneficial influence on the value of the lode.

The CHAIRMAN asked what amount had been realised by the ore extracted from between the adit and the 12 fm. level?—Capt. KITO said that more than 3000*l.* worth of ore had been returned from between those points, although at least one-half of the ore had been previously taken out by what was technically known as the "old workers."

The CHAIRMAN asked what might fairly be expected to be returned between the 24 and the 12?—Capt. KITO said that he confidently looked to open up quite double as much ore ground as had been found between the 12 and the adit. As had already been stated, the lode in the 24, as far as seen, was better than it was in the 12.

Mr. JAMES FROST (of Dudley) wished to know if the ore ground between the 12 and the 24 fm. level lengthened in the same proportion as it had done between the adit and the 12, what amount would be returned?—Capt. KITO said in the 12 they had ore ground for 50 fms. in length, and he thought he might fairly say that they would have an increase of at least one-fourth in the 24 fm. level.

Mr. PEARSON said the advantage would be that for what cost 55*s.* between the 12 and the adit would be done from the 12 downwards for 25*s.*

The CHAIRMAN wished to know, from the experience Capt. Kito had had of the mine, what it would cost to remove the ore?—Capt. KITO estimated it could be taken away for about 25*s.* per fathom, while the ground had averaged over 1*l.* ton of ore, and in others from 1 ton to 1*l.* and 2 tons per fathom.

Mr. KOUGH asked if the manager had anything particular to state with reference to Goldworthy's stop?—Capt. KITO said that was a run of ore ground referred to in his report, and was better than anything he had seen in the 24.

Mr. ROSS asked if there were any ground for hoping that the direction would be in a position to declare a dividend at the meeting in February? The CHAIRMAN had not the least doubt of it. As far as he was concerned he certainly expected a very good one, providing they did not expend the proceeds of their sales in extending the plant.—Mr. PEARSON said he not only fully expected a dividend in February, but he had no doubt whatever that in a short time the shares would be marketable at 10*l.* each.

Capt. KITO, replying to a question, stated that the Brynpostig lode was the nearest known parallel to the Van, which was producing 100 tons of ore per month. On the other side there was the Mid-Wales, which was also opening up satisfactorily; and Plynlimmon was in the same neighbourhood—a mine which had been brought into a productive state in an extraordinary short period.

Mr. OWEN considered that the shares in the Mid-Wales Mine which had been allotted to the Brynpostig shareholders in lieu of money were in all respects equal to 2000*l.* in cash, and therefore equivalent to a dividend, and there was no doubt that those shares would in a short time be a valuable security. He was looking forward to receive dividends at the rate of 50 per cent. per annum from both the Brynpostig and the Mid-Wales Mines, although the latter would not, in all probability, do so as early as the former, simply because operations at Brynpostig were commenced earlier than those at Mid-Wales. He had never sold a share, and all he could say was that now he would not sell them for double the amount they had cost him. (Hear, hear.)

The reports and balance-sheet were adopted unanimously. Upon the proposition of Mr. S. H. KOUGH, seconded by Mr. ROSS, it was resolved that the remuneration of the directors to and including the present meeting be fixed at 7*s.* 6*d.* exclusive of expenses. On the proposition of Mr. FROST, seconded by Mr. PEARSON, it was resolved that 40*l.* (exclusive of expenses and law charges) be voted to Mr. Kough, as secretary. The CHAIRMAN said the next question to be considered was the advisability of having a London representative. After due consideration, the board had decided upon appointing Mr. ROSS (Ross and Co.) to that position. He (the Chair-

man) had had many opportunities of seeing the perfect and satisfactory manner in which that firm conducted the affairs of other companies, and the methodical and lucid manner in which they kept and submitted the accounts to the respective proprietors. Under these circumstances, and it being deemed desirable to have a representative in London, he had much pleasure in proposing that Mr. ROSS be appointed secretary. (Hear, hear.)—Mr. OWEN considered that the appointment would prove equally satisfactory to the appointors and the appointees. He need hardly say that the board had not selected Mr. ROSS without due consideration, nor without feeling assured that the advantages to be derived by his appointment would be reciprocal. (Hear, hear.)

Mr. S. H. KOUGH having resigned, and a vote of thanks having been passed to him for his past services, it was resolved that Mr. ROSS be appointed secretary. Mr. ROSS thanked the directors and shareholders for the compliment they had paid him in selecting his firm as their London representatives, and he could not but regard the compliment as the greater when he remembered that the Chairman of the directors was no less a gentleman than Mr. Job Taylor, Mayor of Dudley, who had large experience in all matters relating to mining. He (Mr. ROSS) might take the present opportunity of mentioning that upon his first visit to Brynpostig he formed a very favourable opinion of it, and, therefore, he accepted the position of secretary with very great pleasure and satisfaction—particularly so when he remembered that he succeeded a gentleman who held such a high position in the professional world as Mr. S. Harley Kough. (Hear, hear.) He certainly thought the directors had taken a wise step in having the chief office of such an important mine as Brynpostig in London. He supposed his association with the Mid-Wales Mine, which originally formed a portion of Brynpostig, had been one reason which induced the directors to select his firm, for he might state that no one was more surprised than himself when he received the first intimation as to the directors' intention. As, however, they had so honoured him, he could unhesitatingly assure all connected with the undertaking that no effort on his part would be spared to merit their unbounded confidence. (Hear, hear.) The Chairman had been pleased to refer to the method he had adopted in the financial management of mines, and stated that it would be a very good thing for directors as well as shareholders if all accounts were kept in the same manner. He (Mr. ROSS) was obliged to the Chairman for that complimentary allusion, and all he could say was that his principle, in all cases where other people's money was being dealt with, was that the plainest and most accurate accounts were essential to a proper understanding between executives and constituents. (Hear, hear.)

Votes of thanks having been passed to the Chairman, directors, and manager, the meeting separated.

CASHWELL LEAD MINING COMPANY.

The annual meeting of shareholders was held at the White Hart Inn, Newcastle-upon-Tyne, on Wednesday, Mr. W. F. DE MEY, M.D., in the chair.

The balance-sheet and the following report from the agent were submitted to the meeting:—

Within the last 12 months the main drift below the Scar Limestone has been driven eastward in the vein 24 fms.; it has been very hard, and on this account slow to drive, but the vein has yielded ore very well indeed, it has been very productive, and it affords me very great pleasure to have to report still more favourably on this part of the mine, as the present appearance of this forebore is easier and better to drive, and altogether it has not looked so well for a considerable time, and if it continue as it is just now it will lay open some good bearing ground. The heading above this drift and next to the forebore above mentioned is yielding ore very well indeed; the vein is 5 ft. wide, and well mixed with ore, producing very large pieces; it is looking very well at the east end of this ground, and where the next new heading will be commenced. About 20 fms. behind, and westward from the last-mentioned heading, a piece of ground is being worked in the upper part of the limestone, and although it is not rich, the vein is producing some nice ore in places. The drift below Slaty Hazle has been driven 7 fms., and a rise made into the sill above, but the vein does not contain ore to pay for working; it is wide enough in the lower part of the sill, but is straighter in going up. At present a rise is being put up from the working in Scar Limestone to communicate with the Slaty Hazle drift at this point. Further west a heading is being worked in the Slaty Hazle and Five Yard Limestone, and is paying well; the vein is straight, but contains some good ore, and promises to be in a short time the appearance of the Drake's Mine sinking has been made in a vein at the level forebore, but as it was without any throw I suspected the main vein to be off on the south side; a cross-cut was made accordingly, and met with it, and is at present sinking into the Scar Limestone in the Cashwell vein; so far as tried no ore has been met with, but judging from the appearance of the vein on the surface, ore ought to be met with before long. If successful in sinking, it is intended to rise and try the vein in Slaty Hazle. In conclusion, I beg to remark that the Cashwell Mine is looking very well, and promises to be, as the same vein is being worked and in the same strata as at Cashwell Mine, and as there is plenty of whole ground between, the importance to be attached to this property can scarcely be estimated or overrated.—JOHN PEARCE.

The CHAIRMAN, in moving that the report and balance-sheet be received and adopted, stated that the accounts showed a balance in favour of the company of 721*l.* 6*s.*, and recommended that a dividend of 1*s.* 6*d.* per share be paid, which, being put to the meeting, was carried unanimously.

The two retiring directors, Messrs. W. C. Arnison and Simon Joel, were unanimously re-elected. A vote of thanks passed to the Chairman terminated the proceedings.

ENGLISH AND AUSTRALIAN COPPER COMPANY.

The half-yearly meeting of shareholders was held at the London Tavern, on Thursday, Mr. R. A. ROUTH in the chair.

The notice convening the meeting having been read, the report of the directors (which appeared last week) was taken as read.

The CHAIRMAN having referred to the salient points in the report, pointed out that the gross quantity of ore delivered to the works by the South Australian Mining Company during the six months amounted to 2524 tons 3 cwt., which was an increase upon the corresponding half of the previous year, when the quantity delivered was 2486 tons 11 cwt. The ore received from other mines, however, showed a falling off from 1823 tons in the latter half of 1866, to 1192 tons to Dec. 31, 1867. The quantity of ore smelted at the Burra Burra Smelting Works, from July 1 to December 31, was 1368 tons in 1867, as compared with 1498 tons in 1866. The quantity of regulus and ore smelted at the Port Adelaide Smelting Works amounted to 1550 tons in the six months with which the report dealt, as compared with 2811 tons in the corresponding half of the year 1866. The quantity of copper made at the Adelaide Smelting Works, including rough copper sent from the Burra Burra Smelting-Works to be refined, was 878 tons for the half-year ending Dec. 31, 1867, as against 901 tons in the half-year ending Dec. 31, 1866; and the quantity of copper shipped from Australia for the same periods was 656 tons in 1867 and 637 tons in 1866. For more than 12 months the Burra Burra Mine had not been worked to any extent, but Mr. Darlington had been sent out to re-organise the works upon a more extensive scale, and he (the Chairman) had no doubt that the result would be a source of profit to this company. The railway, which will run up to the works at Kooronga, and connect them with the port, had been commenced, and if it were true that discoveries of ore had been made close upon the Burra Burra, these could not fail to increase the advantage which the railroad must be to their property. The quantity of ore received from other mines, as compared with that received the previous six months, showed that the mining interest required only to be stimulated to ensure increased supplies, which would make them less dependent upon the Burra Burra Mine. The depression in the copper market, still continued, contrary to the usual order of things, inasmuch as the consumption of copper had kept pace with the increased production. As far as this company was concerned, it had been sufficiently strong not to be obliged to force the market, while all the sales of the company had been made at the full current rates. His opinion was that the crisis which had affected the value of copper since 1866 had passed away, that trade generally was healthy, and that with cheap money—for capital was at a low stage of things would ensue, and with it the value of copper would advance, and take place in the price of metals. The general opinion of everyone is that they had seen the bottom of the fall, and that prices would gradually recover. He thought the shareholders in this company ought to be congratulated not only that both ends had been made to meet, but that the directors were able to recommend a small interim dividend upon the present occasion. His impression was that a higher rate of dividend might have been paid, but the directors were anxious to be on the safe side; and they hoped at the end of the year to make a more satisfactory dividend than that of the year before. He had omitted to mention, with reference to the wharf at Port Adelaide, that the 220 feet continued to yield a very satisfactory return; and it was calculated that the remaining 600 feet would increase their income by 3000*l.* a year, therefore, the directors were anxious to complete the work. The estimated expenditure upon it this year was 2500*l.*, which would be taken from their working capital, and would not in any way interfere with their profit and loss account. He concluded by proposing a dividend of 6*d.* per share.

The proposition was put, and carried unanimously.

The CHAIRMAN, replying to a question, stated that their own mine captain had examined the Burra Burra Mine, and had reported that the extreme depth of the deepest shaft was 50 fathoms, and that there was sufficient ore there to ensure them against falling off in supply for the next 20 years.

A vote of thanks to the Chairman and directors was passed, which terminated the proceedings.

FOREIGN MINING AND METALLURGY.

The week which has just elapsed has presented no very striking fact as regards Belgian metallurgy; orders continue to arrive at the works to a tolerable extent, but great works continue to make default. Several important orders, especially in Russia, are at present being sought after by Belgian industrialists, but hitherto nothing has been determined on. The general production of the mines and mineral bearings of the province of Namur was 545,821 tons in 1867, value 5*s.* 6*d.* per ton, and equivalent, after washing, to 377,103 tons, at 8*s.* 7*d.* per ton. In the preceding year the rough production amounted to 797,470 tons, showing a diminution of 251,649 tons in the production of 1867. The official statement of the condition of the province of Namur for 1867 shows that the production of minerals in that province has been decreasing since 1866, and fears are entertained that the decrease has not yet been carried to its full extent. Hydrated mineral figures in the total production for 309,134 tons of rough minerals, producing after washing 140,416 tons; a diminution is here indicated in the production of 1867, as compared with 1866, of 44 per cent. The production of oil-giste minerals amounted in 1867 to 236,687 tons, against 297,454 tons in 1866; the diminution is, thus, less sensible in this quality. The metallurgical crisis contributed, no doubt, to the considerable diminution which was witnessed in 1867 in the extraction of minerals in the province of Namur; but, according to the official report, the state of the bearings had also something to do with the matter, especially as regards the hydrated minerals. The rapid decrease which has been remarked since 1866 in the extraction of minerals between the Sambre and Meuse must be attributed to the abandonment of the principal workings, which were carried on below the level of the waters, with the aid of powerful drainage engines; and it is feared that the results of 1868 will be less satisfactory than those of 1867.

The state of the metallurgical works of the province of Namur may be summed up as follows:—Four blast-furnaces worked with coke were in activity in 1866, while only three remained lighted in 1867. Out of 13 blast-furnaces worked with charcoal two were in activity in 1866, and one only continued working in 1867. The district had 24 iron foundries in operation in 1866, while in 1867 three of their number were extinguished. There was also some falling off last year in the number of other ironworks in operation. The production of pig, which was 29,079 tons in 1866, declined in 1867 to 26,165 tons. A royal Belgian decree concedes to M. Fromont, De Luttre, and others a concession of mines of manganese, extending over 1450 acres, in the communes of Chevron and Verbonmont, in the province of Namur. The attention of the Belgian coal trade is particularly fixed at present on the crop of beetroot, the greater or less success of this crop involves a greater or less demand for coal, in connection with the production of sugar. The Belgian coal trade remains, upon the whole, in a languid state, and this will continue so long as stocks, which are still large, are not entrenched upon to any considerable extent.

The general state of French metallurgy is improving, especially in the Moselle and the Nord. In the Haute-Marne, although some orders have come to hand for merchants' iron, the trade is not entirely satisfied with the aspect of affairs, and a more decided revival of activity is still hoped for. In the Longwy district producers of pig have cause for congratulation, all the current fabrication being disposed of. The stocks of pig in the Moselle district are stated to be small. M. Zégut, of Tuzey (Meuse), has concluded a contract for 10 loading cranes, weighing about 10 tons 6 cwt. each; there is also a counterpoise, weighing 3 tons 8 cwt. in each case. These cranes, the mechanism of which is not complicated, were tendered for at the following rates by firms connected with the Meuse and Bas-Rhin:—Meuse, 13*l.* 4*s.*, 16*l.*, and 16*l.* 4*s.* per ton; and Bas-Rhin, 16*l.* 18*s.* to 17*l.* 4*s.* per ton. It appears that the Swiss railway companies are replacing cast-iron wheels in their trucks with iron wheels with Krupp's steel tyres. The town of Toul is about to establish a new water service, but it appears that pipes are to be only partially employed. The Pont-à-Mousson works are executing a contract for the town of Metz. Orders for merchants' iron have not made default, the Meurthe and the Moselle, and orders would not be accepted on the conditions which obtained a few months since. There are rumours of a contract for 30,000 tons of rails, concluded by the house of Wendel at 6*l.* 15*s.* 6*d.* Mention is also made in the Nord of an important contract for rails concluded by the Denain Company. The Marquise Blast-Furnaces and Foundries Company has obtained a contract for pipes required in connection with the water supply of Lillebonne (Seine-Inférieure).

The general tone of the foreign copper markets has been rather more satisfactory. The Havre market has not exhibited any very great variation; at the same time, Chilean has continued to harden, the advices received by the last mail announcing deliveries sensibly below those which had been anticipated. The last advices to hand from Havre report, however, a more quiet tone in Chilean. The Amsterdam and Rotterdam markets have been rather irregular; about 2200 ingots of Banca have changed hands at 54*l.* 5*s.*, and 54*l.* 5*s.*, while for another lot of 2000 ingots 54*l.* 5*s.* have been paid; 800 ingots of Billiton have also found purchasers at 53*l.* 5*s.* The price of lead remains without sensible variation on the principal markets. The same may be said with regard to zinc, transactions in which, at Hamburg and Breslau, have been comparatively insignificant. The Paris zinc market has been quiet; rough Silesian has made 20*l.* 12*s.*; zinc from other sources 20*l.* 4*s.* per ton.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

This extremely useful society has just concluded another annual meeting, and although from the locality chosen—Norwich—little general interest was likely to be felt in any branch of science which did not bear directly upon agriculture, it has passed off in a very satisfactory manner. It can usually be noticed at these gatherings that there is some leading subject which proves a general attraction, and seems to possess the power of infusing life and spirit into the sections even unconnected with it; but the year which has elapsed since the Dundee meeting has been so devoid of novelty, either scientific or commercial, that everyone was apparently thrown upon his own resources, and there was nothing to lead those without special questions to bring before the meeting to anticipate that, as at many previous meetings, the opinions prevailing upon some generally interesting topic would be learned. The papers read before the Mathematical and Chemical Sections, although no doubt of considerable scientific interest, were so intensely technical as to be unintelligible to a very large proportion of the members of the Association. In the Geographical Section the papers by Dr. R. J. MANN, on the "Coal Fields," and on the "Gold Fields of Natal," are worthy of especial notice; and in the Mechanical Section several papers were read of considerable interest to the iron trade.

Abstracts of some of the papers, in which the readers of the Journal are more immediately concerned, are subjoined, and others will follow as opportunity offers:—

THE COAL FIELD OF NATAL.—In the Geological Section a highly interesting paper upon this subject was read by Dr. MANN, F.R.G.S., in which he observed that it had been known for some years that deposits of coal of useful quality existed in Natal. It had been used for this purpose by the blacksmiths of the colony. But, in consequence of the remote situation of the district, very little beyond this had been derived from its existence. The commercial and social progress of the colony are, however, now bringing the existence and character of the coal deposit into prominent notice, and it is hoped that it will be yet found possible to get the mineral brought down to the port at a cost which will enable it to be shipped on board steam-vessels at rates which will gradually convert the harbour into a largely-frequented coaling station for vessels bound for the Eastern Seas. A few brief notes of the facts that have been so far ascertained in regard to the character of the deposit, and of the quality of the coal, are on this account brought under the notice of the Association. The position of the mine and its peculiar configuration were in the first place described. The distinction between the maritime region and the hill district was described, and the relation of the coal deposits hitherto discovered to these several positions was pointed out, and the general geological, and physical features of the land were explained by the help of large diagrams. The coal is encountered in beds 5 and 6 ft. thick, and has been traced through an extent of certainly many miles. It is only, however, known where the beds are cut through by the ravines or rivers, where they crop out in the natural faces of hills and cliffs, and where the coal happens to constitute the actual exposed surface of the ground. It is associated everywhere with fine-grained, coarse-grained, and micaceous sandstones and shales, bearing ripple marks, and some of them also thickly packed impressions of fossil plants. The coal lies conformably to the sandstone beds, but is of very irregular thickness, varying from inches to feet within a very short distance, and being often "lenticular" in section. One gentleman, who is well acquainted with the coal of Staffordshire, recently visited the chief centre of the Natal coal district, and came away quite convinced of the abundance of the mineral that could be obtained with the utmost facility. In a preliminary experiment made on a small scale by Mr. W. H. Evans, of Durban, it was found that the coal burnt in a furnace with great readiness and fierceness, and that it left about 19 per cent. of incombustible ash. The same sample yielded 89*l.* per cent. of coke, and a good supply of very brilliant gas. In a more recent and important trial, of which the report had just been officially communicated to the author by the Colonial Secretary of Natal, 7 tons of coal had been tried on board the surveying ship Hydra, and compared with equal quantities of an average sample of North Country English, and a best quality sample of Welsh coal. Captain Shortland dated this report from Algoa Bay on June 2. The statements of the engineer of the Hydra, Mr. Lodge, were:—

In getting steam up—
The Cardiff coal, steam up in 60 minutes, with 26 cwt. consumed;
West Hartley coal, in 50 minutes, with 32 cwt.;
Natal coal, in 55 minutes, with 30 cwt.

The Natal coal, therefore, in these particulars, stands between the average English and best Welsh coals. In steaming on the third grade, with the same amount of water raised into steam, the consumption per hour was—

Cardiff coal	.....	Lbs. 1553
West Hartley coal	.....	1648
Natal coal	.....	1568

In steaming on the second grade the consumption was—

Cardiff coal	.....	Lbs. 1624
West Hartley coal	.....	2293
Natal coal	.....	2128

The several samples yielded of coke—

Cardiff coal	.....	9 per cent.
West Hartley coal	.....	8 "
Natal coal	.....	16 "

Of clinker—

Cardiff coal	.....	2 "
West Hartley coal	.....	5 "
Natal coal	.....	7 "

The Cardiff coal yielded very little smoke, of a light brown colour. The West Hartley coal yielded a large quantity of black smoke, of a dark colour, and a moderate amount of light brown smoke. For easy steaming the Natal coal proved nearly equal in commercial value with Cardiff coal, but when more rapid production of steam was required, a larger quantity of Natal coal than of Cardiff coal was needed, in consequence of the greater amount of earthy matter in the Natal coal deadening the fires, and making it impracticable to keep the full steam up without constant use of the picker and rake. Less Natal coal than West Hartley coal was required for the same amount of steam; but it is easier to keep up steam with West Hartley than with Natal coal. Mr. Lodge finally says that if samples of Natal coal could be obtained with smaller proportions of earthy matter, it would be fully equal for all purposes to the best qualities of Welsh coal. The facts hitherto ascertained fully warrant the presumption that better samples of coal than those hitherto gathered from the mere surface of the ground will be procurable when a thorough systematic investigation has been made. The Colonial Government is, therefore, making arrangements to have a complete geological survey of the coal-yielding district accomplished; and a competent mining engineer to carry out this survey has been recommended by the director of the Government School of Mines in London. The precise geological character of the Natal coal deposit has not hitherto been absolutely and finally determined; but Dr. Sutherland, the Surveyor-General of the colony, has always inclined to consider them as of the nature of secondary lignites. The author has just received from Dr. Sutherland a large supply of organic impressions contained in the sandstones associated with the coal on Bushman's river, and these have been carefully examined with him by Mr. H. Evans, the paleontologist of the School of Mines in Jermyn-street. From this examination, Mr. Etheridge has no doubt that the most abundant form contained among these impressions is that of a *Glossopteris*; and most probably of *Glossopteris Brow-*

mann, a species of fern abundant in the coal deposits of India, Port Jackson, and South America, and eminently suggestive of a Mesozoic formation and age, rather than of Palaeozoic. Mr. Ederidge also thinks that there are traces of Dipteropteris, and of seed cases, and stems of Chylothea, which have much the same meaning, and he entertains little doubt that further search will bring to light characteristic shells, which will satisfactorily prove that the Natal coal is either Jurassic or Cretaceous. The coal, when burnt, has precisely the smell which belongs to the lignites of those Mesozoic epochs, which has a higher percentage of water and ash than the Palaeozoic varieties of coal. Specimens of the Natal coal, and of the fossil impressions associated with the beds, were exhibited at the section, and elicited from Prof. Phillips a series of remarks, which in the main strongly supported the views of the paper. He considered there could be no doubt the matter amply deserved the investigation which it was obviously about to receive, and hoped that the British Association was to have other communications on the subject from Dr. Mann. The entire matter interested him from more than one point of view.

THE MINES OF CORNWALL AND DEVON.*

BY THOMAS SPARGO, GRESHAM HOUSE, LONDON.

In a former number of the Journal a very brief notice was given of this work; simply disclosing its object, stating the general outline of its contents, and describing the mode of its execution. It is too important to be dismissed with such brevity in the columns of a journal devoted to the mining interest. Mr. Spargo's book is statistical, descriptive, and historical. His statistics are characterised by severe accuracy, formed upon special reports of engineers, and from personal inspection, which must have been most expensive. These statistics are also characterised by extraordinary amplitude. All the mines in the great western mining counties are noticed, with complete details of their history, condition, mineralogical prospects, pecuniary resources, and of the market value of shares, in such instances as they are quoted on the Exchanges. The details given comprise statements of the number of shares into which a company is divided, and whether it be constituted on the Cost-book System or under the Limited Liability Act, what the royalty is, the lord under whom the lease is held, the precise locality of the mine, its contiguity to other mines, the geological and mineralogical peculiarities of the vicinity, the depth of the workings, the number of engines on the mine, with all particulars as to pumping, stamping, and winding; the number of men, boys, and females employed; the names of the managers, pursers, mining captains, secretaries, &c. The advantage of going so minutely into everything connected with the state of each mine in such a book must be obvious to everyone who has invested, or is about to invest, in mining property. Sometimes the market is so successfully rigged, that when the price of the shares in a particular mine is very high there is little or nothing to be shown for it at the mine itself. By opening Mr. Spargo's book the dubious investor may at once see the amount of manual and other power actually employed at the time the statistics were compiled, the ratio of ore extracted, the value of the quality of ore obtained, and the character of the sett. It is next to impossible with such information that a man of common intelligence can be misled. At a time when commerce assumes so much of the character of gambling, Mr. Spargo's book must do good service to the bona fide investor, and deserves the title of "Investment made Easy," so far as mines are concerned; for no man has an excuse if he buys mining shares in the dark after the issue of this publication.

The descriptive departments of the work are of great value; indeed, it would not be too much to say that we have known of no book, even expressly topographical, in which so much and minute painstaking is shown in the description of localities, when that is important to the general object of the publication. There is, first of all, a general description of each of the counties. Their differences in climate, soil, production, the manners of the people; and their agreements and differences, geologically and mineralogically, are lucidly presented to the reader. In like manner each section of the counties is accurately defined, and its mineral peculiarities scientifically accounted for. This is important, as it directs attention to the quarters where it may be expected "finds" will be attained; at all events, where explorations would, on grounds of theoretic science, be reasonable. In connection with the descriptive portion of Mr. Spargo's work, we cannot too highly commend the excellent maps. Without these illustrations the work, although still a very useful one, would be shorn of the main feature of interest connected with it. They at once contribute to enlighten and elucidate. The first of these illustrations is a "Parliamentary Map" of Cornwall, showing its divisions, on a scale of 12½ miles to 1 inch, and stating the area of each division, with its population. This map is tastefully coloured, and includes the Scilly Islands, and very finely reveals the sea coast line of the county. The next is a physical and geological map of the county of Cornwall, showing the boundaries of the various parishes. We heartily concur with the *Civil Service Gazette* in the following eulogy of this map:—

"Although applicable to general purposes, it is particularly adapted to miners, brokers, and others interested in Cornish mines, who by its aid can at once glance the position of the various mines now at work, and minutely mark the physical features of each locality. It is a handy and faithful map for consultation. One great advantage which it has over previous maps is that it is not overcrowded with names, and there is, therefore, space to write any new name relating to a mine recently discovered."

This geological and parish map is on a scale of three miles to the inch. There are also plans of each mining district, and sections of particular mines of great celebrity. The longitudinal section of the Botallack Mine is at once beautiful, useful, and curious. As the works of that vast enterprise are carried far beneath the sea, the section is peculiarly interesting, as placing this graphically before the eye of the student. In all the statistical and descriptive matter of Mr. Spargo's book he has made it a *vade mecum* for investors, and intended investors, and it is impossible not to be convinced that capitalists into whose hands this book may come will look more favourably upon mines as an investment, and be able to comprehend clearly the course they should adopt in selection.

There is a great deal of useful information in the work of a more general nature. There is a very condensed description of the geological and mineralogical character of Great Britain, which expresses more about it in a short compass than we have ever before seen. We must make the following extract, as at once showing the tone of thought which pervades Mr. Spargo's pages, and the style in which they are written:—

"It is a remarkable fact that Great Britain is, with some exceptions that are not of sufficient importance to specify, a geological epitome of the whole globe, so far as its geology has been explored. In other regions of the earth vast areas are covered with one particular kind of rock, so that the geological student must leave his own country and travel great distances in order to acquaint himself with the phenomena of the science generally. But viewing Great Britain in comparison with the continents of the Old and New Worlds, we may describe it as a geological cabinet, in which almost all specimens are found. So much is this the case, that foreign students repair to this country for the purpose of enriching their experience by the observation of such varied phenomena at so little travel, toll, or expense. The educated Briton is inexcusable if he do not understand the ground beneath his feet, while foreigners hammer at its rocks, and dig out its fossils. A line drawn from Harwich across the country to the coast of Cardiganshire will pass over all the principal rocks which are found in the strata of any explored country."

Mr. Spargo's chapter on "Mining as an Investment" is very useful. His exposure of the tricks of the market for mining shares is complete. The "Bulls" are taken by the horns, and the "Bears," in spite of their hugging propensities, are pretty well squeezed. No one can fail to perceive that investments in a progressive mine and gambling in shares are processes as unlike as it is possible to be brought under one designation; yet they are both described as mining operations. One undoubtedly is mining, and the other might be called "a sort of grin, human undermining."

We dismiss Mr. Spargo's excellent production with warm commendation, and the hope that it will be extensively perused.

* The Victoria Press, Farringdon-street, London.

INDEX TO "THE TIMES" NEWSPAPER.—The third volume of the "Index to the Times" is now published, and extends from April 1 to June 30 of the present year, and, as was observed in a previous notice, "No library is complete without it." It may be said—"Oh! but we so seldom have to turn to it, that it is almost needless to us." But do you say the same of "Watt's Bibliotheca," or of "Brunet's Manual," or any other work of reference, that, perhaps, you do not turn to once in a year? "Oh no (they will say), but then our library would be incomplete without it; we may want it." So we would say of this volume. When any subject is in debate the proposition is sure to be—"Aye, but what did the Times say about it?" For I know they had many articles on it. But then the enquiry has been—"How shall we find out when it was?" How? by having "Palmer's Index to the Times." Having that in your library, the reference is supplied in a moment. Literary men are difficult men to satisfy—they are a long time taking in an idea—they can very rarely appreciate anything new, any novelty in literature; and thus it is as Index has met with so sorry a reception. A few years hence, and it will be as

Lowndes, Watt, Dibdin, Brunet, "Notes and Queries," and other reference books—to omit it will be an oasis which no other volume can fill. Is it, then, fair that the promoter should thus bear all the brunt of the enterprise, and when the establishment is achieved for the literary world to reap the benefit? Yet such is always the fate of projectors; but we trust such will not be the case in this instance, but that our friends of literature will be so good as to help him to aid, and prove themselves able to appreciate now what in a few years will be not only invaluable, but we should be glad to say unattainable at less than a considerable advance in its price. It creates a new era in newspaper literature, and ought to be accepted as such by the newspaper press. Though absolutely an Index to the Times, it is actually an Index to every other daily paper, and will, in a measure, prove an Index to our Journal.

* Index to "The Times" Newspaper, 4to, 5s. Palmer, Catherine-street.

FOREIGN MINES.

IMPERIAL SILVER QUARRIES.—Lewis Chalmers, July 27: There is no State law against the use of nitro-glycerine, but it would be almost impossible to get miners here to employ it, the prejudice being so strong against it, on account of its explosive nature. If Penrice's machine will do 300 feet a-week in hard hornblende or siliceous porphyry, in place of (as is claimed for it) 30 ft. per day, I shall be delighted to have it. Our water-power supplies the desideratum for furnishing compressed air at a moderate cost. During last week we completed 11 feet of tunnel.

UNITED MEXICAN.—Guanaxuato, July 15: Mine of Jesus Maria y Jose: In this mine there is little or no change to record. The frentage goes north-west from the pozo de Guila is in fair ore; that to the south-east does not look so well. Last week more buzones came in, and one of these workmen have found in a cross-cut driven to the bajo (back) of the old frente De la Trinidad a strip of narrow but very good ore; and our miner has placed several others to work near him and in the same direction, with the hope of making similar discoveries. The ore received from the hacienda workings has improved in ley; and from tortas already in the patio I am convinced that our results in the quarter ending in September next will be better than those of the half-year already run out. The accounts for the month of June show a profit of \$2896.—Mines in the Guadalupe de la Oscura District: There are few buzones at work, and the amount of ore received from them is trifling, though some of it is of very fair ley. The Patrocinio month has been communicated with the Contraloría del Progreso. Last week 8½ cargas of ore were sent to Duran, and in the mine there are about 3 cargas more on hand from El Carmen and El Oro workings. For reasons already explained I am limiting the work in this district. Haciendas, or Reduction Works: The haciendas are leaving good profits, and I confidently expect an increase in the second six months of the year.

CAPULA.—Capt. Paul, July 27: In my last, of the 8th inst., I informed you that the engine was put to work on the 2d. I am glad to say it works well; it takes from 6 to 8½ strokes per minute to keep the water in fork. The shaft is being sunk by three Englishmen and nine natives; at first the barretters (according to their custom) refused to work themselves or let others work with the Englishmen in the shaft, but by suspending the working of the best stopes they soon came to. As soon as we can get some houses put up for the men to live in who are coming here from Pachuca and Real del Monte, we shall be able to carry on the works of the mine without being interfered with by the people of the neighbourhood, who are very hard, and principally composed of quartz, in which we find good stones of blue ore; last week they sunk ¼ vara; this week we expect they will sink at least ¾ vara. We are receiving a good stock of fuel, in case September month should be very wet. Last week they delivered nearly 600 cargas, the weekly consumption being about 150 cargas. San Enrique end is without much alteration since my last; the lode is very large, and composed of quartz, with spots of blue ore all over; we have not yet met with the south wall; last week they drove ¼ vara. The Esperanza level, at 101, is very good, and the shaft is a narrow branch of ore to the south; the ground is a little harder; last week they only drove 60 centavos. We shall soon commence a cross-cut south to ascertain the width of the lode, and see whether it is more productive in that part. The end driving west from La Bomba shaft, under Angelita level, to communicate with the east stopes from San Jorge rise, is still producing good quality ore; we are short of about 4½ varas to make the communication, after which San Jorge workings will be well ventilated. The stopes east of La Bomba are suspended for the present, to allow us to clear all the attic from the Esperanza level. 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MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

THURSDAY.—Market moderately active. Price of Wales advanced to 35s., 36s. West Chilverton, 61 to 62; Pon Pedro, 3/4 to 3 1/2; Yudanamutana, 4 1/4 to 4 3/4; Marke Valley, 7 1/2 to 7 3/4; Chilverton Moor flatter, at 6 1/2 to 6 3/4.

FRIDAY.—Settling-day, and not much doing. Price of Wales in demand, at 36s. to 38s.; West Chilverton, 61 to 62; Yudanamutana, 4 1/4 to 4 3/4.

BRITISH MINES.

CUNDRA—F. Puckey, A Cundy, Aug. 25: In the 142, west of Walker's shaft, we are driving in the killas by the side of the lode, and the ground is still moderately easy for exploring. The lode in the stope in the back of this level, east of the winze, is 8 ft. wide, composed of quartz and peach, and producing some good work for tin, worth 144. per fathom. In the 136 ft. level end driving west the stope or tin part of the lode has been applied to, and has been found to be mostly of quartz and hard, but has a little peach. The tin part of the lode is now apparently making still further north, which is not yet cut into, and before doing so we intend putting up a rise in the back from the present end in the killas, to communicate with the winze sinking below the 100 as soon as possible to ventilate the 130, and to open out more ground for stopes, which will then enable us to increase our returns of tin. In cutting out and stoping the lode behind the end of the 130, and to the level of the 100, we have found the lode to be composed with cappel, but not quite so good for tin as when last reported on; now worth 304. per fathom. The winze sinking below the 100 west is down 6 fathoms. In consequence of the lode in the winze being hard, and letting out much water,

There are, however, several of those points which present very promising appearances, and, I have no doubt, will improve when again prosecuted. In the 90, west of Thomas's engine-shaft, the lode shows signs of improvement, and I have every confidence that it will further improve as it reaches the point under the run of ore ground in the 80 fathom level above. We hope to sample during

GREAT LAXEY.—R. Rowe, Aug. 26: We expect the shaftmen will complete the new rods from the 80 to the 130 by the end of next week. Since last report nothing has been done in the 200, the water having risen to that level. In the

in the shaft is without change since our last report. In the 30 south the lode is 18 in. wide, principally of white iron. The lode in the 30 north is in two parts principally gossan, the same as we had preceding the bunch of lead in the 20 ft. level winze. In the bottom of this level we have a fine lode of lead, and tomorrow we purpose to sink a winze upon it.

GREAT SOUTH GILVERTON.—I. Nancarrow. I. George. Aug. 24. The lode

the shaft and 20 yards south we had a joint, which we find in sinking the shaft continues to go down; it is now about 1 ft. wide, of clay, &c., and looking very promising; I have set to six men to sink the shaft on the course of the joint

which is underlying west about 1 ft. in a yard, until the end of the month, at 37. 10s. per yard; the men to fill and land all the stuff, pay for drawing, &c. I have set to four men to drive the 80 yard level, west of Bright's shaft, at 10s. per yard, and 8s. per ton for ore; the men to pay all costs, as usual; the ground in the present end looks very promising for the production of ore.

NEW BIRCH TOR AND VITIFER CONSOLS.—William Skewels, Richard Trevethen: Hambley's engine-shaft is down 13 fathoms below the 48; at this point the lode is 1 ft. wide, containing a little lead, but not paying quantities. We shall now drive a 60 fm. level west for about 6 ft., and then take out the pencehouse, case and divide the shaft, in order to get the kibble down as quickly as possible. This work in connection with the fixing of the lift, &c., will, we think, require fully another month to complete. The winze in the bottom of the 48 west is down the required depth to meet the 60, west from the shaft, and, therefore, we purpose to drive east to meet it at once. The lode here is worth about 37. per fathom. There is no other outcrop on this lode at present.—North Lode: The new shaft is down about 12 fathoms below the 48; the lode is from 12 to 18 in. wide, containing good stones of tin. The lode in the winze in the bottom of the 48 is worth from 47. to 55. per fathom; this winze is down 11½ fms., and as soon as down 7 ft. more we shall drive east towards the new shaft. There is no other change to notice.

NEW CLIFFORD.—J. Michell, Aug. 27: We continue to make good progress with the driving of both cross-cuts in the 50 fm. level, the stratum in each clay-slate or killas, and of a very congeal character, being highly charged with mineral, which is a good indication that the lodes when intersected will be rich for copper ore.

NEW CROW HILL.—A. Kent, T. Trelease, Aug. 25: In the sump-winze, sinking under the 70, we are making good progress in sinking, the ground being easy, and the water not increasing. The pitch in the back of the 55 is looking pretty well, and producing some good work. In the back of No. 2 stop we have four men rising, but the lode here is poor at present. In the 22 there is no change to notice. Our surface operations are working satisfactorily, as our surface water has very much increased by the heavy showers we have had.—Wheal Louisa: At the engine-shaft we are sinking at a moderate rate, at 16½ per fm. In the winze sinking under the 60 we have cut in south, and in so doing have discovered a splice of lode, which is producing excellent stones of ore; to say the least, this place is looking very promising, and we hope for further improvement shortly. In the 60 east we have been cross-cutting north, the lode having been heaved by a slide, but in the past week we have succeeded in cutting it again; it is quite strong and regular, with a little improvement, compared with the western side of the slide, and is now producing stones beautifully spotted with lead ore. Our pitwork is in good working order.

NEW EAST RUSSELL.—J. Gifford, Aug. 25: On Saturday last the following bargains were set:—The 20 west to drive by two men, by side of the lode, stent 1 fm., at 47. 10s. per fm. In the deep adit west we have met with a small cross-course, which we think has heaved the main part of the lode north, and we have put the men to cut in that direction to prove it.—North and South Lode: The 20 south to drive and stop by four men and four boys, at 57. per fm. for the end, and 7s. in 17. tribute; lode in present end 2 feet wide, worth 12½ per fm. We shall sample on Friday next about 34 tons of good quality ore.

NEW GREAT CONSOLS.—R. Pryor, T. Bennett, R. Trathorn, Aug. 24: Ellis's engine-shaft men in the past week have been busily engaged in cutting ground at the 50 fm. level for catch cells, and repairing the winch-shaft, the casing and dividing having been taken out in several places in order to send down the remainder of the 16 and 14-luch main rods in the 74 is being pushed on with all possible speed, and no time will be lost in carrying out this work so as to fork the mine to the bottom. The tribute pitches are looking much the same as for some time past, and the tributaries continue to break fair quantities of copper ore, the dressing of which is carried on with all energy. All surface work is going on very satisfactorily.

NEW TRELEIGH.—S. Michell, Aug. 26: The lode in the winze sinking below the 70, west of the new shaft, never looked better than at the present time, worth 3 tons of ore per fm.—a very promising lode. There is a good branch of ore forming in the leader part of the 70 fm. level end west, but the ground is wet and troublesome about the vug that has spoken in the past week, which has rather retarded our progress for the past few days, but I find the men are to-day making better headway. In order to prove the continuation of ore in the bottom of this level, I have taken the men from the end, and put them to sink a winze about 7 fms. west of the former one, where I am very pleased to see the nature of the lode, and there is no doubt by next week we shall be able to report as to its value. The new shaft, if all be well, will be down 8½ fms. by Saturday next, and I have much pleasure in saying that the lode never looked better than at this time, worth 3 tons of ore per fm., it is 2½ ft. wide, of a lasting character. Our prospects for future results were never so good as they are at the present time. In conclusion, I would remark that our dispatch in laying open ground is different to that in and above the slide; here the rock has become more compact, and more favourable for the production of copper.

NEW WESTMINSTER.—W. Kitto, Aug. 27: We continue to sink Thompson's engine-shaft with twelve men, and making fair progress. No lode has been taken down in the shaft for the last 3 fms. sink, and will, therefore, remain untouched until we reach the next level. We can see ore in the lode, but its present value I cannot determine, as we have no change of importance in the 70 fm. level end east since my last; ground a little more easy. We have commenced to clear the 60, east of Thompson's shaft, with a view of proving the eastern section of the mine below those very extensive works made by the ancients, and where we consider there is every reason to expect success. Nothing else new.

NEW WHEAL LOVELL.—C. Bawden, J. Price, Aug. 27: The lode in the 20, east of Hill's engine-shaft, is at present disordered by a slide. The lode in the 42, east of Lanyon's shaft, is worth 30½ per fm., and is again improving. A vein has been put in back of this level 3 fms. below the 42, the lode in which is 5 ft. wide, worth 40½ per fm. for its length, 10 ft. Colonel's shaft is being sunk below the 20 in a lode worth 20½ per fathom. The 20 east is poor. The mine is opening out very well, and bids fair to become a permanently productive property.

NEW WHEAL TOWAN.—Richard Pryor, Aug. 26: We are desuing the lode in the adit level driving west, but the ground has become a little more favourable, and the lode is making fair progress. **NORTH DOWNS.**—Pryor, J. Gifford, Aug. 25: In the 85, west of King's shaft, the character of the ground is very much improved in appearance for copper ore; it is letting out more water than it has since we have been driving it, and should the ground continue we shall be able to drive 4 fms. a month; this is important as it will enable us to get under the ore gone down in the 60 much sooner, in addition to a better chance of meeting with another shot of ore in this channel of ground. In the 80, west of King's shaft, the lode is traversing with a branch similar to that met with in the 50 previous to intersecting the lode; it produces a little ore but we believe the main part of the lode to be still further south. Two stops in the back of the 62 each worth 12½ per fm. Arise in the back of the 50 is worth 10½ per fm.; this is in the killas over the elvan, and is an important point. There is no change to notice in the ends since last report. Our tribute pitches, on the whole, are producing fair quantities of ore.—Wheal Pever: We have a tribute pitch working in this part of the mine in the back of the 40, and we hope to draw a parcel of tin stuff from there by the latter part of this week when we shall be in a position to say more about it.

NORTH POOL.—J. Vivian and Son, F. Clymo, Aug. 27: Main Lode: In the sump sinking under the 40 we have a good branch of copper ore on the south side of the lode, varying from 3 to 4 in. wide, and which looks as if it would form a junction with the lode in sinking a few feet further; should it do so, it will probably be attended with a considerable improvement in the lode. In the 40, east of sump, we have a promising branch of copper ore, 2 or 3 in. wide, and the appearance of the other part of the lode, and of the rock which it is traversing is highly favourable for copper; we are driving at this point towards the great mass of copper ore which was worked by the first company owning the mine. The stop in back of the 40, west of sump, is yielding 2½ tons of copper ore per fathom.—Ballarat Lode: In the 40, west of Ballarat shaft, the lode is composed principally of soft quartz, sprigged with mundle, blende, and yellow copper ore.

NORTH RETALLACK.—G. R. Odgers, J. Harris, Aug. 22: The lode in the No. 1 boundary shaft, sinking below the 10 fm. level, is of much the same size as we stated in our report for Wednesday, and producing good stones of silver-lead. There is not much water in this shaft, and the men are making good progress with the sinking.

—G. R. Odgers, J. Harris, Aug. 22: The lode in No. 1 boundary shaft is looking very promising, containing good lumps of lead. In the western side of the shaft there is a dropper of lead, which will shortly fall into the lode.

NORTH ROSKAR.—J. Vivian and Son, Aug. 27: We have sampled 98 tons of copper ore. We have still a good lode in Pearce's shaft, and I think it will improve. We have also a promising lode in the 20, east of Pearce's shaft. The trial winze sinking under the 230, west of Doctor's shaft, the tin lode continues of undiminished value and promise. We have been busily engaged with the necessary preparations for sinking Doctor's shaft, and we shall now make rapid progress in clearing the shaft below the 20, and in a few days be ready to commence sinking.

OKEL TOR.—No. 1 winze, in the bottom of the 65, on the south lode, will yield for its length (12 feet) 10 tons of ore per fathom; and No. 2 winze will yield 6 tons of ore per fathom. The lode recently intersected in the 65 fm. level cross-cut south is looking very promising indeed, and we are breaking some good work from it; there is every appearance of the lode becoming very productive against the south wall.

OLD GUNSLAKE.—H. Rickard, Aug. 26: There is nothing new to call for any remark in either of the cross-cuts; the ground is equally favourable for driving. The tribute pitches are much as usual. On Friday next we shall sample about 27 tons of copper ore.

PEDN-AV-BREA UNITED.—Wm. Tregay, J. Thomas, Aug. 22: Sump: The sumpmen have this week been employed securing the collar of engine-shaft, the timber there having shown indications of failure, consequently no progress has been made in the 140 fathom level west end. In the 130 west we have not yet reached the footwall, which is large, letting out much water, and producing stones of tin. In the 120 west winze the lode is worth 10½ per fathom. In the 120, east end, the lode is worth 12½ per fm. In the 100, east of Bragg's cross-course, the lode is still unsettled, and the ground is worth 6½ per fm. In the 68 east we are getting away large quantities of tin stuff, of low produce.—Cobbler: In the 120, west end, the lode is still unproductive. In the stop in the bottom of this level the lode is worth 15½ per fathom.—North Mine: In the 55, west of cross-course, stopping on tribute, the lode is worth 20½ per fm. In the 55, east of cross-course, stopping on tribute, the lode is worth 10½ per fm. In the 20 and 30 fathom levels the pitches are looking well, and yielding good quantities of fair quality tin stuff. No other change to report.

PENHALLS.—S. Bennett, Wm. Higgins, Aug. 21: The 60 east is still unproductive, but lode looking a little more promising. The diagonal shaft has to be sunk a few feet more for fork, or we commence to drive. The 60 west is producing occasional good stones of tin. The new lode in the winze below the 50, east of cross-course, is worth 10½ per fm. In the 50 north, west of cross-course, tin and capels are making their appearance, therefore we expect the lode is not far off. The 45 east is worth 8½ per fm. The 44 east, on Pink lode, is not so productive as it has been. The 40 west, on same lode, continues to produce saving work, but not sufficient to value. The winze below the 40, on new lode, is worth 15½ per fm. At the Pink mine there is nothing further discovered since last report. The stop now at work there at the 30, west of Shop shaft, is producing large quantities of fair quality tin stuff.

PENHALE UNITED.—R. Pryor, H. Bennett, J. Pryor, Aug. 25: The lode at Phillips's engine-shaft, sinking below the 10s, is 2½ ft. wide, producing good stones of silver-lead—a very promising lode, and indicating an improvement shortly. The lode in the 90, driving north of shaft, has greatly improved, being 2 ft. wide, now worth 1¼ ton of silver-lead per fathom, with a good appearance.

In this level, south of shaft, we have met with fair ground, which filled the level for several fathoms behind the end; all the stuff that is coming from this run will pay well for dressing, and in which we find some splendid rocks of lead; this we regard as an important feature, being just under a hard bar of ground driven through in the level above. The lode in the 80, driving south of shaft, has also improved, being 2 ft. wide, producing 3 cwt. of silver-lead per fathom, and has a very promising appearance.—Hall's Shaft: The men at this shaft are busily engaged clearing the 80 fms. level south, in order to effect a communication, as well as to send the water back to Phillips's engine-shaft, and when completed it will save us 10 fms. in drawing the water through this shaft (Hall's), which is an important item.

PERKIN SILVER-LEAD.—M. Wasley, Aug. 25: Operations were resumed last week on this extensive property. Next week we shall commence the shaft from surface to communicate to the level driven in from the sea. We are clearing up the adit and 1 ft. below the Farmhouse, where the nature of the lode will soon be seen in this part of the shaft. So far, however, it presents the same kindly appearance as the back of the lodes in the other parts of the mine. It will depend on future prospects how far we may extend in this quarter. I have purchased some timber, tackle, rope, kibbles, blacksmiths' bellows and other materials cheap, and have carried greater part of them on the mine, so that we shall very shortly be ready to commence the shaft before mentioned.

PRINCE OF WALES.—J. Gifford, W. Gifford, Aug. 27: In the 65 east the lode is at present large, but poor. In the 65 west the lode is 2½ ft. wide, worth 10½ per fm. In the 55 west the lode so far as seen is worth 10½ per fathom. The stop in back of the 55 east is worth on an average 25½ per fathom each. The stop in back of the 55 west is worth 15½ per fathom. In the 45 west there is no change since the general meeting. The stop in the 45 west, on the supposed new lode, is worth 15½ per fathom.

PRINCESS OF WALES.—G. Rickard, Aug. 26: During the past week, in driving the north adit level west from cross-cut, on the north or footwall part of the lode, we have broken some very pretty stones of black and yellow copper ore, which is at present looking exceedingly promising. The engine-shaft is now down 6 fms. 3 ft., in a good looking channel of killas. The men are working spiritedly, and hope to complete their bargain (10 fms.) in three weeks from this date. We have commenced to take out the foundation for engine-house, also raising stone, &c., in order to get the masons to work as early as possible.

REDMOOR.—T. Taylor, Aug. 27: The lode in the 25 fm. level winze is about 18 in. wide, producing about 3 cwt. of black tin ore to the fathom; the ground is very soft. There is no change in the stop in the back of this level. In the 12 east the lode is 3½ feet wide, worth 12½ per fathom for copper ore and tin. We are now making the grass shaft on the run into a horse-whim hauling shaft; we have hitherto pulled from this shaft by manual labour. We are getting on very well with the furnace at work, and the tin stuff is proving as reported, and we are getting on with the kilns as fast as possible.

ROARING WATER.—H. Thomas, Aug. 25: The cross-cuts are progressing favourably, with six men in each end, and from the change of ground in both places I think very soon I shall have something of importance to communicate to the public.

ROSE AND CHIVERTON.—J. Evans, Aug. 27: The new lode presents a fine appearance going south, and I should not be surprised at any time to cut into a bunch of lead.

ROSECLIFF AND TOLCARN.—R. Pryor, Aug. 26: No change in the 50 fm. level, driving east of cross-cut, since our last report. The lode in the old engine-shaft, sinking below the 30, is 2½ ft. wide, still worth 2 cwt. of silver-lead per fm., and promising for improvement. The lode in the winze sinking below the 20, west of old engine-shaft, is still disordered by the branch which crossed the winze, but, judging from its appearance and character, we fully believe that it will shortly change for the better.

SORTRIDGE CONSOLS.—James Richards, Aug. 27: The ground in the 152 fm. level cross-cut, north of Hiltchins's shaft, continues favourable, and good progress is being made. In the 140 north, and east of the eastern cross-course, the lode is not yet reached; the ground is favourable for progress.

SOUTH CONDUROW.—J. Vivian and Son, W. Williams, Aug. 22: In the 90, south of King's shaft, we have met with some difficult ground in carrying out the lode, there being a soft decomposed flookan on the north wall of the lode, which is being forced out by the pressure of the water, and in consequence we are obliged to advance very cautiously, and to use strong and close timber; we think, however, that we shall be able to report the nature and size in our next. In the 82, west of King's shaft, the lode is 1 foot wide, composed principally of flookan and iron. In the 71 west, the lode being disordered, we have to-day determined to drive south, to intersect the tin course. In the 61 west we are driving east, and the lode is 3 ft. wide, composed principally of chlorite, containing mundle and occasional lumps of black copper ore. In the 20, east of engine-shaft, on the middle lode, the lode is 1½ foot wide, producing tin worth 5½ per fathom. We sampled on Wednesday last 32 tons of copper ore, of good quality. We are raising fair quantities of tinstone, the greater portion of which we are obliged for the present to stock, for although the water has begun to increase, our stamping power is still very limited.

SOUTH DARRBY.—J. Boudry, Aug. 27: In consequence of the long drought which we have had very little has been done in the 70 west for the last six weeks. As there is now a little change in the weather and a little rain, we hope we shall soon be able to get the water in fork again, and resume operations in the 70 west. The lode at this point is of a most promising character, being 2½ feet wide, composed of a good mineralised killas, copper, and lead ore, yielding of the latter good lumps of ore. In advance of this end the lode in the bottom of the level above for 30 fathoms in length is valued at 20½ per fathom for lead and copper ore. The lode in the 60 west is 2 feet wide, worth for lead and copper ore 25½ per fathom, with indications of further improvement. There are two runs of ore ground yet in advance of this end, which was valued at from 12½ to 14½ per fathom, where seen in the bottom of the level above the 50. The sinking of the drawing-shaft below the 60 west is being continued as fast as possible, and good progress has been made. The lode in the stopes over the back of the 60 west is 3 feet wide, worth on an average for lead and copper ore 10½ per fathom. The lode in the 50 west is worth 20½ per fathom for lead and copper ore, and is a cross-measure of ground, which has recently passed through the end. However, we are glad to say we are getting into a better stratum of ground, with a large stream of water coming from the end, and presenting such indications as promise an early improvement. The lode in the stopes over the 50 and 40 fm. level west is 2½ feet wide, worth on an average for lead and copper ore 15½ per fathom. There is nothing worthy of particular remark in other parts of the mine. On the whole, our prospects at present are quite as good as for some time past. We have about 12 tons of best copper, and about 20 tons of second copper, which can be got ready to sample in a few days.

SOUTH HERODFOOT.—W. Goldsworthy, Aug. 27: We are pushing on the cross-cut at the 100 as fast as the nature of the work will allow; we are not quite clear of the capels, therefore there is no change to notice this week.

SOUTH ROYALTON.—T. Parkyn, Aug. 27: In accordance with the resolutions of the meeting and request of the adventurers, I have commenced this valuable mining property, and I am happy to inform you that I have already reached the bottom of the level, and that the ground is of a most promising character, most congenial for tin, and the lode is 20 feet wide, and can be taken away as open cutting, so that the tin stuff can be raised cheap and in large quantities. I shall push on every point with all possible dispatch, and shall be in the market with tin in two months after the engine is set at work, which will be in a month from this time. From samples taken from the lode I find it will yield 10 lbs. of tin to the ton of lode stuff, which will pay well 10s. in 11, and the supply of this tin stuff is immense, so that large quantities can be instantly sent into the market, at 10s. per ton, for 30 fathoms in length. I shall continue to work in securing such a valuable property, and will report progress.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennett, Aug. 22: The ground in the shaft is composed of elvan; the lode is split into branches of quartz, containing stones of ore.

ST. JUST AMALGAMATED.—Richard Pryor, William White, R. Wearne, Aug. 26: Phillips's Engine-Shaft: The lode in the 50, driving north of this shaft, has not been taken down during the past week; consequently, there is no value to be reported on fully. The lode in the 50, driving south of shaft, is worth 6½ per fathom. The lode in the 20, west of caunter, is at present disordered, and of no value. The lode at Savall's engine-shaft, sinking below the 100, is worth 11½ per fathom, and presenting a good appearance, looking promising for a further improvement. The lode in the 100, east of this shaft, is worth 8½ per fathom. The lode in the 90 west is worth 4½ per fathom. The lode in the 80, driving north, is worth 5½ per fathom, and promising an improvement.—Owl Lode: The lode in the 90, driving north of Reddipier shaft, is worth 5½ per fathom. The lode in the 20, driving north, is worth 6½ per fm. The lode in the 10, driving north, is worth 8½ per fathom, and improving in its appearance and character, and we expect shortly to meet with the bunch of tin driven through in the level above. The lode in the 10, driving north on the branch, is worth 10½ per fathom. The lode in the adit level, driving north, is still improving in its appearance and character, and producing good stones of tin. The lode in the 62, driving north on Pryor's lode, is worth 3½ per fathom.

VIGRA AND CLOGAU.—W. J. Holman, Aug. 27: From the quartz broken from the stop east of No. 5 shaft, under No. 2 adit, No. 2 mine, two or three stones containing visible gold have been picked out; none can be seen in the solid rock, but the lode, which is 4½ ft. wide, looks very well. The lode in the end east of same shaft is 15 ft. wide, and just now is very hard. In the drive west of No. 4 shaft the lode is 4½ feet wide, and since last report has considerably improved in appearance. The No. 6 shaft is now passing through a band of poor ground, similar to the ground in sinking No. 1 shaft, and is unproductive, which the lode was worth 100½ per fathom. In No. 6 shaft this and no doubt, from 3 to 4 fms. thick; the rock is not so hard, and good progress is being made in sinking. At the Old Clogau Copper Mine the works underground are confined to the sinking of the incline shaft, which is in dead rock, the works on the lode having been merely to blast up some parts of it in the bottom for assay. The water is now rather quick, and the engine is working three or four days a week to keep the mine clear. At Vigra Mine the Jeany's adit is being continued as usual. Since Monday last 16 tons of stamps have been working full speed, and with a continuous supply of water we hope to soon be able to work up the stuff that has been accumulating since May last, including the fine stuff broken with the visible gold at No. 5 shaft.

WEST BASSET.—Geo. Lightly, Aug. 26: In the 164, east of Grenville's shaft, the lode is 3 ft. wide, containing stones of copper ore. In the 164 west the lode is yielding 2 tons of ore per fathom. In the rise in back of the 154 east the lode is yielding 1 ton of ore per fathom. In the 144 west the lode is also yielding 1 ton of ore per fathom. In the 65 west, on the middle lode, the lode is worth 8½ per fathom for tin. On Hamby's lode, in the 65 east, the lode is worth 8½ per fm. for tin, and in the 65 west it is worth 4½ per fm. for tin. Our sampling of copper ore to-day is (computed) 225 tons.

WEST BRITON.—W. Rosewarne, Aug. 27: Wheal Strawberry Lode: The lode in the 42 fathom level, east of the cross-cut, is about 2 feet wide, composed of mundle, quartz, and stones of copper ore—a very kindly lode. We have a long extent of unexplored ground in this direction, and the lode in the adit level is a very promising one indeed, composed of gossan and quartz, with spots of cop-

per ore. The pitch working in the bottom of the 20 fathom level, at 10s. in 17, is looking just the same as when last reported on.—Wheal Dumps Lode: The lode in the 42 fathom level, east of the engine-shaft, is about 2½ feet wide, yielding copper ore. The engine is working very well.

WEST CARADON.—Wm. Johns, N. Richards, Aug. 25: Allen's lode, in the bottom of the winze in the 180, is much the same as last reported—about 1 foot wide, mixed up with mundle, and spotted with yellow copper ore. We have removed the men to open out on Vivian's lode, west of cross-cut, which is about 1 ft. wide. We shall be able to say more about it in our next report. Allen's lode, in the 170 east, is presenting a very promising appearance, associated with a good channel of ground, with a little more water than usual coming from the end. Such indications look very favourable for a further improvement in the lode. Dunstan's lode in the 104, east of cross-cut, is about 1 ft. wide, containing mundle, peach, and spar, with occasional stones of yellow copper ore. The lode in the winze below the 114 (Gonamena) is over 3½ ft. wide; the leading part is worth 1 ton of copper ore per fathom. After we have sunk this about 10 feet deeper we shall drive west, which will be an equal depth with the 104, and effect a speedy communication. In the 80, 24 fms. west, we are pushing on the north cross-cut with all possible speed, but up to this date we have not reached the lode. At our next setting we purpose as well cross-cutting south, to see what lodes we have standing in this direction.

WEST GODOLPHIN.—J. Vivian and Son, J. Pope, Jun., Aug. 27: Hope Lode: In the 35, east of Paul's shaft, in 2 fms., the lode is improving, now worth 10½. A great change of rock and lode has been met with at this point. The rich but lode of tin we have had above have been accompanied with gossan, and a great deal of iron, but we have now got into a stratum of light blue killas, which, together with the lode passing through it, is entirely free from iron. We also occasionally meet with lumps of silver-lead in the lode. We are led to hope, judging from these appearances, and the altered character of the tinstone, that the valuable formation of tin into which we are now entering will prove of a more permanent character than the deposit discovered at shallower points, from which our returns have hitherto been derived. We shall commence sinking Paul's shaft below the 35 as soon as the said level has been communicated to the winze sinking from the 25, which will be in about a month. The 25 fm. level, east of Paul's shaft, is again improving, and is now worth 4½ per fm. The lode in the winze under the 25 is worth 6½ per fm. The stop in the back of the 25, east of Paul's shaft, is worth 8½ per fathom. The 15 and 8 fathom levels, east of Paul's shaft, are opening through tin ground of low quality. The price for driving and sinking at the different points on this lode varies from 25 to 17 per fathom, and for stopping from 15s. to 20s. per ft.—Caunter Lode: Footway shaft is complete to the deep adit level, and a plat is being cut, which will take about a fortnight to complete, when the hydraulic engine will at once be put in its place, and we shall commence sinking below the engine adit in profitable tin ground, by which we expect to add materially to our returns. In the deep adit level, south-east of footway shaft, the lode is 2½ ft. wide, composed of tinstone of low quality, and presenting a better appearance than for some time past. We stated in our last report that the tribute pitches in the back of the deep adit were working at 7s. 6d. in 17, which was an error, the tribute being 6s. 8d. in 17.

WEST MARIA AND FORTESCUE CONSOLS.—William Skewels, J. Donnal, Aug. 26: West Maria Lode: The lode in the 60, east of Maria engine, is to be taken down in time for next week's report. The ground by the side is of a favourable character for the production of copper, and we expect an improvement in the lode when taken down. The lode in No. 1 stop, in back of this level, is worth 10½ per fathom, and in No. 2 stop 7½ per fathom. The lode in the 50 east is worth 30½ per fathom. The lode in the rise in back of this level is worth 20½ per fathom; and in the stop 11 is worth 20½ per fathom. In the 40 east the lode is 1½ ft. wide, worth 10½ per fathom, and in the stop 12 is worth 8½ per fathom. The new shaft is down about 4½ fms. below the 30, and the ground is still favourable for sinking.

WEST PRINCE OF WALES.—W. C. Cook, Aug. 25: The south lode, in the south engine-shaft, is the same in character as described in my last, consisting of flookan, white iron, mundle, and good spots of copper ore. The only difference is that the ore towards the eastern end of the shaft is a little softer; it is, indeed, a most promising lode, and I have no doubt that ere long it will be found very productive. I am quite pleased with the recent change in its appearance. In the 16, at the north engine-shaft, we have been cross-cutting the main lode during the past week; the cross-cut and the part of the lode being carried in driving on its course shows it to be 12 ft. wide at this point, and I am not certain that the north wall is yet reached. I am inclined to think that it is not, as there is a great quantity of water coming from the northernmost point reached; there is, however, sufficient done to prove the lode to be one of unusual size. It consists of spar, capel, flookan, iron, &c. We know that there are also a great deal of the lode in the drive. How large it is I cannot say; it seems to be increasing in size as we increase in depth. It will be seen that the age east is just in the heart of the lode, from which occasional cross-cuts will have to be driven north and south, for the purpose of ascertaining the size and character of the lode. I am glad to say that the cross-cut has cut off nearly all the water from the eastern end, so that I hope we shall make better progress in driving.

WEST TOLGUS.—Aug. 26: Little has been done since our last report in Taylors' lode, and in driving the 90 fms. level, at the water has been in for two or three days, in consequence of one of the bucket-rods having broken, but we are got to work again, and the levels are looking as well as we have ever seen them. The lode in the 85 west is 18 inches wide—unproductive. In the 85 east the lode is producing 4 tons of ore per fathom. The lode in the 75 west is over 3 ft. wide, producing 2 tons of ore per fathom—a very promising lode. In the 65 west we have a part of the lode about 1 foot wide, consisting of spar, mundle, and spots of ore. We have five stopes, working by 30 men, each worth 12½ per fm. The lode in the 55 west is 3 ft. wide, consisting of killas, spar, blende, and spots of ore. The water does not seem to increase.

WEST WHEAL KITTY.—J. Vivian, Aug. 25: Our stamping power is small, and at present water very slack; however, immediately the rain sets in we can work at a profit. In the meantime, we can push on the adit towards the cross-course, near to which, and in the same level, the mines in close proximity to us, and on parallel levels, were very rich, and made great profits.

WEST WHEAL TREMAYNE.—S. Roberts, Aug. 25: The lode in the 32 west, being now 10 in. wide, and producing occasional stones of copper ore, and letting out more water. There is also an improvement in the ground in formation and appearance, it being a more congeal killas than last week. We are daily expecting to cut the western part of the cross lode; when done we hope will drain the winze in bottom of the 20, in which there is too much water at present to sink. The winze men are now driving the 20 end west on engine lode towards Park Toll shaft, the lode small. The pitch in bottom of the 20, near the shaft, at present is looking well.

WHEAL AGAR.—E. Rogers, Aug. 26: The engine-shaft is down 16 fathoms below the 110—sinking by six men and three boys, at 4½ per fathom. The lode in the shaft is 2 feet wide, but not rich enough to value. The flat-roof shaft is down a little more than 15 fms. below the 150, without any change in the character of the ground; price for sinking 55½ per fathom. We are also cross-cutting north in the 110, east of the engine-shaft, by four men, at 10½ per fathom, which is all the tribute bargains we have at present working, it being advisable, I think, to confine our operations for the present principally to the sinking of the level.

WHEAL BULLER.—J. Inch, J. Brown, Aug. 26: Last Friday being our setting-day, we set the following tribute bargains and pitches:—The 92, to drive east of Stevens's shaft, to nine men, at 12½. 10s. per fm.; the lode in this end is producing tin, but not to value. A stop in the back of this level, to three men, at 6½ per fm., worth for tin 9½ per fm. A stop in the back of the 80, east of this shaft, to four men, at 4½ per fm., worth for tin 8½ per fm. A winze to sink under this level, to two men, at 4½. 10s. per fm., worth for tin 6½ per fm. The 40 to drive east of this shaft, to two men, at 4½ per fm., worth for tin 8½ per fm.; this end is producing 1½ ton of good copper ore per fm. A winze to sink under the 50, on this lode, to four men, at 8½ per fm.; the lode in this winze will produce ½ ton of copper ore per fm. Hocking's shaft, to sink under the 80 fathom level, to six men and three boys, at 28½ per fm., worth for tin 10½ per fathom. The 80, to drive east of this shaft, on Stevens's lode, to two men, at 12½ per fm.; the lode in this end is producing good stones of copper ore. The 80, to drive west on this lode, to two men, at 14½ per fm.; the lode in this end is squeezed by a hard bar of ground, unproductive. A stop under the 70, on the main lode, west of the cross-course, to six men, at 4½ per fm., worth for tin 10½ per fathom. A stop under the 60, on this lode, west of Knuckey's winze, to six men, at 5½ per fathom, worth for tin 12½ per fm. A stop east of Knuckey's winze, to six men, at 5½ per fm., worth for tin 9½ per fm. Eleven tribute pitches, to thirty-three men, at an average tribute of 10s. in 17. We sampled to-day 29 tons of copper ore. We are dressing our next batch of tin as fast as possible.

WHEAL CROBBER.—J. Gifford, Aug. 25: On Saturday the following bargains were set:—In the 120, west, we have put the men to cross-cut south, as we believe the main part of the lode is standing in that direction; set to six men, stent 2 fms., at 7½ per fathom. The 120 west to drive by six men, stent the month, at 6½. 6s. per fm.; lode 2 ft. wide, composed of capel, quartz, and mundle, with stones of copper ore intermixed, but not enough to value. The 96 cross-cut south to drive by four men, stent 2 fms., at 8½ per fm. Davis's pitch, in back of the 108 east, on the south and caunter lodes, by four men, at 13s. in 17, and 12s. 6d. per fathom, and 12s. 6d. per fm. for dressing the western end of the south lode, the eastern end being stopped for the time until the tributaries put in a shaft in back of the level; lode in present end is 5 ft. wide, composed chiefly of capel and quartz, with mundle and copper ore intermixed, but not enough to value—yet a very promising end. A pitch in back of the 108, east on the main lode, by two men, at 13s. 4d. in 17, and 12s. 6d. per fathom. Two pitches in back of the 84 east—one at 11s. 6d. and the other at 8s. in 17; tribute, time not out.

WHEAL CRELAK.—Wm. Hooper, Aug. 26: The lode in the 80, driving west, is 1½ ft. wide, composed of mundle, capel, and copper ore, but not sufficient to value. The lode in No.

In the 50, east of the rise, west of Roger's shaft, is worth 41. per fm. The lode in the 20, west of Bolitho's, is opening tribute ground.—North Russcoe Lode: The lode in the 160, east of Bolitho's, is worth 31. per fm. The lode in the 160, west of Bolitho's, is worth 51. per fm. The lode in the 150, east of Bolitho's, is worth 21. per fm. The lode in the 140, east of the cross-cut, is worth 31. per fm. The lode in the 140, east of the cross-cut, is worth 31. per fathom. The 150 cross-cut, south of Kitty lode, and the 140 cross-cut, south of North Russcoe lode, are without change to notice.

WHEAL SPARNON.—W. Tregay, Aug. 22: The north lode, in the 30, west of cross-course, is producing stones of copper ore, and promising for improvement in getting clear from the cross-course; ground favourable for driving.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,

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Among recent specifications of inventions are the following:—
Mr. T. WHITWELL, Stockton-on-Tees, has patented improvements in furnaces. He claims the constructing of a permanent gauge in the flue necks of puddling, boiling, heating, and other furnaces.

Mr. JOHN ROWE, of Wrexham, has patented improvements in the construction of miners' safety-lamps. The object is to render miners' lamps more secure and durable, and less liable to be opened than safety-lamps of the ordinary construction. Instead of the ordinary screw to connect the cap to the bottom of the lamp he makes a groove in the bottom, and studs in the cap, fitting together in the manner of a bayonet joint; and he applies an india-rubber or other elastic ring beneath a metal ring between the cap and bottom, to form an air-tight joint. A similar joint is applied between the flange of the wick tube and its seating. The patentee also claims a lock for safety-lamps, which he thus describes:—To the cap of the lamp is screwed a tube, in the outer end of which is a key-hole for the admission of the key, which takes into a recess in the end of the locking screw, and this key-hole is so small that the screw cannot be drawn out through it. When the lamp is locked it is impossible to unlock it with any instrument except the proper key, which is made of a piece of steel wire, with a cross pallet, and with a crank to turn it round, or otherwise.

Mr. H. BESSEMER has patented an invention relating to the treatment of crude or cast iron, and in the manufacture of malleable iron and steel. According to his invention he proposes to treat molten, crude, or cast iron with nitrate of soda, or other solid oxygen-yielding substance, in a vessel mounted on trunnions, and provided at one end with a chamber, or case, to contain such nitrate or substance, and at the other end with a mouth, for supplying and delivering the iron, and for the escape of gases during the conversion. The metal poured in at the mouth does not come in contact with the nitrate or other substance, and it may be tipped to carry the same below the molten metal, and again tipped to discharge the metal from the mouth. Also in treating molten, crude, or cast-iron, the top of the case, or chamber, is closed with a perforated fire-tile or slab of refractory stone. Molten, crude, or cast-iron is treated with nitrate of soda, or other fusible oxygen-yielding substance, by forcing it in jets into and amongst the metals. Heated air or steam may be forced through the same tuyeres or orifices as those for admitting the liquid nitrate, so as to heat them before the nitrate is supplied, and exclude the metal from them before and after its application. The nitrate of soda, or other substance yielding oxygen, may be conveyed in a powdered state into and amongst the metals by jets of carbonic acid gas, or other gas incapable of yielding oxygen to the molten metal. Improved apparatus is also claimed relating to modifications of the converting vessel used in the Bessemer process.

THE INDUSTRIAL RESOURCES OF VENEZUELA.

At all the recent international industrial exhibitions Venezuela has occupied a prominent position amongst the representatives of the South American Republics, and the Government have now taken a very wise step, by which they will secure the development of Venezuelan resources with an amount of energy that was previously scarcely hoped for. A grant of no less than 240,000 square miles of land has been made to Dr. H. M. Price, and others, as representatives of THE CHARTERED AMERICAN, ENGLISH, AND VENEZUELAN TRADING AND COMMERCIAL COMPANY, with a view to secure the colonisation of all vacant lands in the State of Guayana and the district of Amazonas. The terms of the concession, which are fully set forth in a handsome little volume* just issued by the company, are highly favourable—the company is to enjoy the exclusive right to all mineral and vegetable products found on the land, and various privileges in the shape of exemption from import and export duties, by which salt, iron, machinery, &c., can be taken in free, and cotton and tobacco exported; the company will likewise have the right to establish factories, and construct the necessary railroads, telegraphs, and canals, whilst the emigrants are to be secured perfect freedom of religion, of press, and of speech, and to possess the right of being represented in Congress, according to the census, which is to be taken every five years.

With regard to the attractions offered to intending emigrants and settlers, it will suffice to state that the changes of season are scarcely perceptible, and vegetation sprouts forth perpetually; on the coast the temperature ranges from 60° to 90° Fahr. in winter months, and on the table-lands the variation does not exceed 10°, from 70° to 80° Fahr.; and on the plains of the Orinoco the air is cooled by rapid evaporation. The flora of the country is one of the richest in the world. From the level of the sea to the height of 3000 ft. extend the region of the palms, mingled with which are cardons and cacti of a delicate form; sensitive mimosa, pine-apple or bromelia, the cow-tree, which yields nutritious milk and cheese, and many other plants and fruits. Among the large timber trees may be mentioned the baobab, the bombax, the mahogany, live oak, sarsaparilla, euphorbia, dragon's blood, and various other drugs, besides caoutchou or India-rubber, all produced in the same region. Gold, silver, copper, tin, coal, soda, asphalt, petroleum, salt, alum, &c., have been found; the coal, which is of bituminous quality, and said to be equal to the best English Cannel coal, is abundant in many places. At Araya, facing the sea, are extensive salt mines, which yield the purest salt.

The working of the mines of Venezuela has been much neglected, but the existence of metallic veins in Venezuela cannot be doubted—grains of gold are found in the whole mountainous territory of Venezuela, and mines of gold and silver were worked at the beginning of the Conquest, and Indian gatherers have sometimes found lumps of gold 15 or 16 ozs. in weight. The Spaniards, in the year 1551, wrought the gold mine of Baruta, which was the cause of the foundation of the town of Barquisimeto. The mines of Los Teques could not be peacefully wrought till the defeat of the Cacique Guayacupari, a celebrated chief of the Teques, who long contested with the Spaniards the possession of the province of Venezuela. The present geological indications there exist two groups of auriferous alluvial land—one between the sources of the Rio Negro, the Uaupes, and the Iguazú; and the other is situated between the sources of the Essequibo, the Caroni, and the Rupunieri rivers. The gold mines of Carate and Guasipati, on the Caroni River, a short distance from Las Tablas, have lately been discovered; they are rich in gold, both in abundance and quality. The quality of the gold is 24 carats, a quality that neither California nor Australia possess. The deposits of iron and copper are also very great in Venezuela Guayana, but thus far undeveloped. The copper is of an excellent quality, and is even preferred to that of Sweden and Goguinabo (Chili). Mercury and lead have been found, but not yet worked. From these facts it will be readily admitted that there is great justification for the opinion that in the region referred to Anglo-Saxon colonists must prosper, aided, as they will be, by industry, energy, skill, and a determined purpose.

* "The Emigrant's Vade-Mecum, or Guide to the 'Price Grant' in Venezuelan Guayana." London: Trübner and Co., Paternoster-row.

COAL IN INDIA.—The consumption of native Indian coal is rapidly increasing—its value as a steam coal being fully recognised wherever it has been adopted. In the Bengal Presidency there are 1400 miles of railway, and upwards of 100 steamers employed in inland navigation—all using Indian coal, which is found to be more economical than English. The price of best quality Raneeungee coal at Calcutta is 10 rupees per ton, being only about one-third the price of English, so that the difference in quality (Raneeungee coal producing about three-fourths the useful effect of English coal) is far more than compensated. Some of the Indian coal is quite equal to the best English or Welsh, but as usually sent into the market the imported coal is decidedly the best. As the mines are within 100 miles of Calcutta, and coal is easily conveyed by rail, Raneeungee coal is more readily used than the better sorts, which are not so easily procurable. The workable seams in the Raneeungee mines are seldom more than 100 ft. from surface, fire-damp is unknown, and ventilation is so easily arranged that open lights can be invariably used. The pumping and hoisting are generally done by steam power, but in the small pits, worked by natives, gins, worked by women, are usually substituted. The cost of coal at the pit's mouth varies from 4 to 6 rupees per ton, all costs included. The height of the coal country about Raneeungee varies from 250 to 300 feet above the level of the sea. The seams in the mines of the Bengal Coal Company's first pit, which is now completely worked out, were two important beds of 8 and 9 feet respectively; the latter of these was only 27 feet from the surface. This mine is easily worked, the dip being very slight, and the mine near the terminus at Raneeungee added very much to its value. The coal is wrought by natives, who are paid by piecework, varying according to situation.

MINING IN NEVADA.—The new Truckee district, to the north of Truckee River, towards Pyramid Lake, which caused considerable excitement some three years since, will now be opened out. The ores are all argentiferous galena, and many of them are very rich, but heretofore the country has been almost inaccessible, on account of its desert character and roughness. The Central Pacific Railroad now passes within 6 or 7 miles of some of the principal leads, and the ores may now be brought to the railroad at a trifling expense, and shipped to San Francisco for smelting. An average specimen of argentiferous galena from the Imperial Consolidated Mine, assayed at Messrs. Bunting and Co.'s Gold Mill Assay Office, yielded silver at the rate of nearly 357. per ton. Much larger yields were obtained when the mines were first prospected; doubtless, however, from choice specimens. The Central Pacific Railroad Company

have 9000 men at work, and they intend to lay 20 miles of track weekly from the Big Bend eastward; locomotives are now running 24 miles eastward from Reno.

MEXICO AND VERA CRUZ RAILWAY.

Our correspondent from Mexico informs us that Mr. KIRKPATRICK had left that city for London, in order that in person he may more effectually lay before the board the actual state of everything connected with this promising undertaking, which suffered for a time in its interests from the change of Government, in the late war for Independence from a foreign yoke. He assures us that this enterprise, now that peace has been established throughout the Republic, is likely to become the best paying railway, except the one across the Isthmus of Panama; and he gives us his reasons, which we imagine ought to be convincing:—

1.—The present traffic is derived almost exclusively from local sources, as most merchants have their goods brought up from the coast in carts, as the break in the railway at present—that of loading and unloading three times—would occasion delay, extra expense, and breakage. As soon as the railway is finished the carting business to the city could not compete with railway prices, thereby giving an increase of income to the railway. Bullion is also taken down to the coast in carts from the same existing causes. Two-thirds of the present income of the line between the city and Apizaco is derived from the carriage of pulque, or Mexican wine, which is a daily and constant freight, without any fluctuations, as pulque is produced all the year round, and is the common beverage of the humbler classes. The average freight by carts from Vera Cruz to the city is about 20%, a ton during the dry season, rising to 30% during the rains.

2.—Most mines in the Republic are only partially worked, as the expense of bringing machinery from England, at the present prices of freight by carts, is ruinous, and all mine owners are looking to the day with anxiety for ordering steam-engines and every class of iron from England. The price of cast-iron in the city at present is \$8 a quintal, or 351. a ton; wrought-iron averages 571. to 601. per ton; salt, if I remember right, averages from 141. to 151. per ton, and is one of the staple articles of consumption in the reduction of silver ores. Were it not for the proverbial richness of Mexican mines the owners could not long continue to work them with such ruinous prices for their principal articles of consumption. The completion of this railway will cause a great increase in the working of mines, and consequently a greater amount of imports into the country; and this railway may be considered the back-bone of the Mexican Republic. Many other mining districts, which up to the present have not been worked, such as tin and copper, which exist in abundance, would be made to pay by a cheaper freight to the coast than the present one by carts. The Copiapo Railway, in Chili, derived three-fourths of its revenue from the freight of ores to the coast, and has paid 20 per cent. per annum for years. An American company has already started some copper mines and smelting-works, on the strength of cheap freights by rail to the coast.

3.—The Mexican shareholders who live in the city are a guarantee for the protection of English interests, as their direct influence with the Government and the Congress is naturally great. He hopes that the board of directors in London will not hesitate to push on the working of the road with activity.

At the Mexican Railway Company meeting, on Tuesday (Mr. R. W. Crawford, M.P., in the chair), the report stated that the traffic of the line was increasing, the receipts on the upper portion being at the rate of 221. 10s. 7d. per mile per week, and on the lower section 291. 1s. 7d. per mile per week. The remainder of the railway was unfinished, though in different stages of progress. In order to carry the works on and complete the undertaking, the directors proposed to raise 500,000l. on debentures, extending over a long period, but redeemable by annual drawings, and as a security they proposed to mortgage the net receipts of the line from Mexico to Puebla. The report was agreed to, and the special resolutions were passed empowering the directors to borrow money on mortgage of the whole or part of the line, to fix the rate of interest, and create a sinking fund.

THE COPPER TRADE.—It may not be without interest to know that Mr. Routh, who from his position as Chairman of the English and Australian Copper Company cannot fail to be an authority upon the subject, stated at the meeting, on Thursday, that his opinion was the crisis which had affected the value of copper since 1866 had passed away, that trade generally was healthy, that with cheap money—for capital was on strike—a better state of things would ensue, and with it there was no question an advance would take place in the price of metals. The general opinion of everyone is that they had seen the bottom of the fall, and that prices would gradually recover.

ENGLISH MINING MACHINERY IN CHILI.—From the Andocollo Mines, Chili, Mr. Thomas Richards, late of the Devon Great Consols, writes that the steam-engine manufactured by the Messrs. Nicholls, Mathews, and Co., of Tavistock, has been put to work in the presence of many Chilean gentlemen connected with mining undertakings. The engine worked in good style, and gave great satisfaction to all present. The health of the manufacturers of the engine was proposed, and warmly responded to.

FRONTINO AND BOLIVIA.—The West India packet has brought a remittance on account of this company of six bars of gold, weighing 489 ozs., the whole of which (less 68 ozs. balance of the May gold) was the result of the operations at the mines for the month of June. Mr. Rouch states that he hopes to send at least a remittance of equal value by the following mail. It appears that the stamping-power is capable of returning a larger quantity of stuff than was anticipated, for 1640 tons were actually crushed in June, and 12 additional heads of stamps were all ready to go to work. It is gratifying to observe the change which has been effected in the condition of this company's affairs, and it is considered that with the facilities which now exist for returning large quantities of mineral very important results may be shortly expected.

GOLD MINING IN ITALY.—The floods which have succeeded the long drought in Italy have done some damage to the works at the Pestarena Mines; but, as will be seen by the report, which appears in another column, it is believed that the whole of the damage will be repaired, and the works again placed in an effective state, within a month. The report of the manager as to the value and capabilities of the property is of the most encouraging character. The gold obtained between the date of the last advices and the time of the interruption of the works will be received in London in a few days.

MINING IN CARDIGANSHIRE.—Referring to a communication in last Saturday's Journal, there can be no doubt that the working in connection with the Darren and Cwmsymlog Mines have been of a most reckless character, and the plans inspected by us show a want of attention not to be expected from any man experienced in mining. At the meeting held at the London Tavern in 1864 it was shown that, under the direction of Capt. Williams, the 10 fm. level had been erroneously driven, occasioning considerable loss of time and capital, and it has subsequently been discovered that the whole of the drivings on Oliver's level have been made in an equally unminner-like manner, the direction of the level being such that the more work done the greater was the distance from the lodes; hence it is concluded that the long time which has been occupied in bringing the mine into a profitable position is attributable solely to injudicious management at the mine. That Oliver's adit was not driven by the shortest course towards the old ore ground is beyond question, but it is considered preferable to forget past errors, and vigorously develop the property. Under these circumstances the continuation of discussion upon the subject could not possibly be of utility or interest, and must inevitably lead to angry feelings between the employees immediately concerned; further reference to the matter is, therefore, unnecessary.

MINING IN WALES.—The details of the general meeting of the Brynpostig Mining Company, which was held in Dudley, on Monday, under the presidency of Mr. Job. Taylor, the mayor, are reported in another column. It is satisfactory to find that although the mine has been in the hands of this company for less than two years returns of ore have been made sufficient not only to meet the larger portion of the outlay upon development, properly chargeable to capital, but that the current sales leave a satisfactory profit upon the operations. The Chairman stated that a dividend would be declared at the next meeting, to be held in February. Mr. Ross (Messrs. G. R. Ross and Co.) was appointed the London representative.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, AUG. 28, 1868.

COPPER.				IRON.			
Best selected..p. ton	76	0	0	Bars Welsh, in London	6	7	0
Tough cake and tile	73	0	0	Ditto, to arrive	6	5	0
Sheathing & sheets.	78	0	0	Nail rods	6	15	0
Bolts	80	0	0	Do., Stafford	7	10	0
Bottoms	83	0	0	Bars ditto	7	5	0
Old (Exchange)	68	0	0	Hoops ditto	8	2	0
Burra Burra	80	0	0	Sheets, single	9	0	0
Wire	0	0	10 1/2	Pig No. 1, in Wales	3	15	0
Tubes	0	0	11 1/2	Refined metal, ditto	4	0	0
BRASS.				Bars, common ditto	5	12	0
Sheets	per lb.	7 1/2 d.	8 1/4 d.	Do. murch. Tyneor Tees	6	10	0
Wire	per lb.	8 1/4 d.	—	Do., railway, in Wales	5	17	0
Tubes	per lb.	10 1/4 d.	—	Do., Swed. in London	9	17	0
Yellow Metal Sheath.	p. lb.	6 1/2 d.	7 1/4 d.	To arrive	10	0	0
Sheets	per lb.	6 1/2 d.	7 1/4 d.	Pig No. 1, in Clyde	2	13	0
SPELTER.				Do. f.o.b. Tyneor Tees	2	9	0
Foreign on the spot	£20	0	0	Do. Nos. 3, 4, f.o.b. do.	2	6	0
" to arrive	20	0	0	Railway chairs	5	10	0
ZINC.				" spikes	11	0	0
In sheets	£24	10	0	Indian Charcoal Pigs,	7	0	0
TIN.				In London, p. ton.	7	0	0
English blocks	96	0	0	STEEL.			
Do., bars (in barrels)	97	0	0	Swed., in kegs (rolled)	14	5	0
Do., refined	98	0	0	Do., (hammered)	14	15	0
Banca	94	0	0	Ditto, in fagots	16	0	0
Straits	93	0	0	English, spring	17	0	0
TIN-PLATES.*				QUICKSILVER (p. bottle)	6	17	0
IC Charcoal, 1st qua.	1	5	6	LEAD.			
IX Ditto, 1st quality	1	11	6	English Pig, com.	18	15	0
IC Ditto, 2d quality	1	4	6	Ditto, L.B.	19	0	0
IX Ditto, 2d quality	1	10	6	Ditto, W.B.	21	5	0
IX Ditto, 3d quality	1	2	6	Ditto, sheet	19	17	0
IC Coke	1	2	6	Ditto, red lead	20	0	0
IX Coke	1	8	6	Ditto, white	27	0	0
Canada plates, p. ton	13	10	0	Ditto, patent shot	22	10	0
Ditto, at works	12	10	0	Spanish	18	5	0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—A slight improvement has taken place in the Metal Market during the past week, and a rather better business has been done; and although it is still very far from being in that state of activity which is so desirable, yet, as a movement in the right direction has taken place, we may fairly presume that matters are about to mend, and that we shall gradually find that business is resuming the vigour which it is accustomed to have during the autumn months. It is satisfactory to find that from some quarters much better accounts are being received as to the state of trade in some of the manufacturing districts, and that the depression which has so long existed there is now in a great measure passed away, and been replaced almost by former activity, and that where the men have lately only been employed half or three-quarters time they are now at work full time, as orders are coming in very freely. It is to be hoped that this improved state of things will continue, and that it will be a long time before we again hear from those districts the unsatisfactory accounts which have so long been received from them. We should be glad if the same favourable report could be given of metals generally; but, unfortunately, some remain still in a very languid condition, prices continuing very low and unremunerative, and orders by no means abundant. Nevertheless, we are not without hope that ere long we shall find a general improvement in the whole market, and see prices once more advance to something that will be more encouraging to both manufacturers and importers. The orders from India have not yet become much better, and are still very small and scarce; but, as several late mails have now been very unsatisfactory in their results, we may anticipate that coming ones will bring over more abundant orders, so that the wants which we presume must arise there may be supplied.

COPPER.—The market for this metal continues dull, and the amount of business actually done is only small. Prices of English are, if anything, a trifle easier, and 20 tons of tough cake are reported as sold at 721. 10s. Chili bars have been sold at 671. to 671. 10s. on the spot, and at 681. 10s. for distant arrivals.

IRON.—In Staffordshire the trade maintains the recent improvement, most of the works are able to keep the men employed full time, and there is a general expectation that the change for the better will prove permanent. The railway companies are ordering rails, and other sorts of iron, and it is clear that prices will not be lower. In Welsh the change of weather has enabled operations at the works to be carried on with more regularity than for some weeks past, and the mills and forges have been fairly employed. The rails manufactured are principally for the American markets, the advices from which are considered favourable as to future requirements. From the Continent enquiries continue few in number, but there is a fair prospect of an increase in the demand. In the home trade the improved feeling already referred to is fully maintained, and considerable engagements are likely to be entered into before long, the stocks of buyers being unusually low. There are also signs of revival in the demand for plates, consequent upon the increased vitality in the shipbuilding trade. In Swedish iron the demand has again improved, and some considerable transactions have taken place. In Scotch pig-iron the tone of the market generally has much improved, and a good business has been done. Prices have advanced to 53s. 3d. cash, and 53s. 6d. one month.

LEAD.—The market continues steady, and without any change in prices, but the amount of business transacted is only moderate.

TIN.—Business continues to be done to a limited extent in Straits at 931. cash, at which the market is firm.

SPELTER.—No change for the better has taken place with regard to this metal, which remains in a very inanimate condition; about 200 tons have been sold at outputs at 191. 10s., and the quotation for parcels on the spot is now 201. per ton.

TIN-PLATES.—The works are now reported as in good employ, and coke qualities still command a ready sale.

STEEL.—A little more enquiry is now existing.

QUICKSILVER.—In moderate request only.

The settlement of the fortnightly account in the MINING SHARE MARKET has occupied much of the attention of the dealers this week; otherwise business has not shown much change, nor has there been much greater activity than we reported upon in our last. The standard for copper ore declined 15s. this week.

The chief business has been in West Chiverton, Prince of Wales, Chiverton Moor, West Frances, West Prince of Wales, Great Retail-lack, Chontales, Great Laxey, Great Wheal Vor, Marke Valley, Emily Henrietta, Yudanamatana, and a few others. West Chiverton shares have been extensively dealt in at 61 to 62. We believe the dividend declared at the meeting in Cornwall to-day was 21. per share, and that the lode has been cut well at the 120, but we have not received our usual telegraphic dispatch. Prince of Wales shares have been largely dealt in, and leave off at 35s. to 37s. 6d. The 65 east is large, but not to value; the 65 west is worth 81. per fathom; the 55 west, 101., as far as seen; the 55 east, 51. The supposed new south lode in the 45 west is still large, keeping the same underlie, and worth 151. per fathom; Chontales, 2 to 2 1/2; Cook's Kitchen, 10 1/2 to 11; East Caradon, 2 1/2 to 2 1/2; East Greenville, 30s. to 32s. 6d.; Frank Mills, 1 1/2 to 1 1/2.

Chiverton Moor shares have declined to 5 1/2, 6 1/2; at the meeting held on Aug. 21 the accounts showed a balance against the company of 4581. 18s. 8d., and a call of 2s. 6d. per share was made. The lead sold during the quarter realised 10391. 18s. 5d. The engine-shaft has been sunk to the 85, and the cross-cut commenced towards the lode, which will probably be intersected in three months. The 75 west is worth 4 cwt. of lead per fathom. In the 65, east of cross-cut, there has been a very promising lode opened on for the last 15 fms., and this is considered an important point, as there is a large extent of unexplored ground in this direction, towards West Chiverton. In consequence of the stopes falling off in the 65, and the 75 not reaching the ore so soon as expected, the agents state they have not been able to sell so much lead as they had anticipated; but, from present appearances and value of the 75, they expect they are near the ore, and very fairly hope to do better in the next quarter. Frontino and Bolivia, 14s. to 16s.; Great Laxey, 17 1/2 to 17 1/2; Great North Downs, 1 1/2 to 2; Great

Wheal Vor, 12 to 13; Herodsfoot, 39 to 41; North Crofty, 27s. 6d. to 30s.; North Roskear, 13 to 14; Don Pedro, 3 to 3½; Yudanmutana, 4½ to 4¾; Rossa Grande, 16s. 6d. to 18s. 6d.; North Treskerby, 9s. to 11s.; Providence Mines, 20 to 22; South Frances, 17 to 19; Tincroft, 13 to 13½; West Frances, 27 to 29; West Seton, 150 to 160.

Marke Valley, 7½ to 7¾; the levels on the Rosedown lode are worth 17 tons of copper ore per fathom in the aggregate. Wheal Basset, 59 to 61; Wheal Buller, 5 to 7; Wheal Emily Henrietta, 29 to 31; Wheal Mary Ann, 19½ to 20½; Wheal Seton, 47½ to 52½. At Clifford Amalgamated Mine meeting a call of 2s. per share was made, the balance against the company being 15,081.7s. 7d. Wheal Grenville, 20s. to 25s.; in the 130 west the lode is improving; the 100 fm. level west, 12s. per fm., the lode worth 9s. per fm.; the 54 west, 15s.; the back of the 66, 12s. per fathom. At Great Retallack, the lode at No. 1 shaft has improved to 4 cwt. of lead per fathom; the 20 south, 4 cwt.

The Market for Mine Shares on the Stock Exchange during the week has been dull, and the fluctuations have been unimportant. Chontales shares are steady, at 2 to 2½; St. John del Rey shares are firm, at 20 to 20½; Don Pedro shares are also rather firm, at 2½ to 2¾; Yudanmutana shares have risen from the lowest point, and close 4½ to 4¾; Anglo-Brazilian, par to ½ prem.; Capula, 2 to 2½; Port Phillip, 1½ to 1¾; Rossa Grande, ½ to ¾ prem.; Pestarena shares are enquired for; Frontino and Bolivia are more favourably reported on; Javali, ½ prem.; Central American, ½ to par. British mines have been dealt in to a moderate extent. West Chiverton, 61½ to 62½; at meeting, held to-day in Cornwall, a dividend of 2s. per share was declared, and the report submitted was of a highly favourable character. Chiverton Moor shares have been more offered, closing 5½ to 6½, or a fall of 20s.; Great Laxey, 17½ to 17¾, and very firm. Prince of Wales shares have risen to 36s., 37s.; the new lode is very promising, and the 65 fm. level is valued at 6s. North Wales mines, and lead mines generally, are in favour with investors. Miners shares are in demand, at 16s. to 17s. Great Rhosmor, 4½ to 5; the lode at Ellis's is valued at 3 tons; Batters's shaft, 4 tons; the stopes in the 70 fathom level, 6 tons; and Rogers's lode, 3 tons per fathom. Glan Alun, 6s. 6d. to 7s. 6d.; good progress is being made in the erection of the water-wheel.

IRISH MINE SHARE MARKET.—Although we cannot boast of a very active market in Mining Shares, yet prices have not suffered to any great extent. Wicklow Copper shares (2s. 10s. paid), which left off last week at about 10s. 5s. per share premium, are at 12s. 15s., fluctuating between this price and 12s. 10s., but leave off firm at 12s. 12s. 6d., or an advance of 2s. 6d. per share on the previous day's price. Mining Company of Ireland shares have been much enquired for, and repeatedly dealt in, but quotations were unsteady, and have fallen from 15s. 15s., the average price of the last few weeks, to 15s. 7s. 6d. and 15s. 5s. for cash, and 15s. 5s. for account (7s. paid), leaving off in demand. Connors shares have on several occasions this week realised 5s. per share, but left off at 4s. 6d., with rather an increasing enquiry. Cape Copper shares rose since our last report from 12s. to 12s. 13s. 9d., thereby attracting sellers, in consequence of which this quotation has lost 6s. 3d. per share, the final transactions having taken place at 12s. 5s. to 12s. 7s. 6d. (7s. paid).

Referring, in last week's Journal, to the recent remarkable purchase of the celebrated Berehaven Copper Mines, county Cork, by a few Dublin gentlemen, a typical error makes us state that those gentlemen's relative interests were from 5 to 55 1000th parts, instead of 100th parts, as should have been printed.

At Redruth Ticketing, on Thursday, 1622 tons of ore were sold, realising 7926.8s. The particulars of the sale were:—Average standard, 97.9s.; average produce, 7½; average price per ton, 4.18s.; quantity of fine copper, 127 tons 2 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
July 30	2113	97 15 0	7 ½	4 10 0	12s. 1½d.	£80 13 6
Aug. 6	3093	102 15 0	6 ½	3 13 6	11 9	58 15 0
" 13	2318	105 14 0	5 ½	3 9 6	11 9	59 0 0
" 20	3754	105 3 0	6 ½	4 0 0	12 5 ½	62 7 0
" 28	1622	97 9 0	7 ½	4 18 0	12 5 ½	62 7 0

Compared with last week's sale, the decline has been in the standard 15s., and in the price per ton of ore about 1s. Compared with the corresponding sale of last month, the advance has been in the standard 17.7s., and in the price per ton of ore about 1s. 9d.

Mines.	Per share.	Amount.
Miners	£6 0 0	£10,800 0 0
West Chiverton	2 0 0	6,000 0 0
West Whel Seton	5 0 0	2,000 0 0
Dolcoath	4 0 0	1,432 0 0
Prince of Wales	0 1 0	640 0 0
Cashwell	0 1 0	480 0 0
Wheal Kitty (St. Agnes)	0 2 0	429 10 0
Brentford	0 6 0	300 0 0
English and Australian	0 0 6	1,750 0 0
Total		£23,831 10 0

At Cashwell Lead Mining Company meeting, held at Newcastle-upon-Tyne, on Wednesday, a dividend of 1s. 6d. per share was declared. Particulars in another column.

At St. Ives Consols meeting, on Aug. 18, the accounts showed a loss on the three months of 1047. They had a great many pitches working at high tributes, but there is no material change in the mine. There are 187 hands employed underground; of these 116 on tribute, at an average of 11s. in 11.

At Nanigles meeting, on Aug. 18, the accounts showed a loss on the three months ending May of 1123. They are now driving a cross-cut to explore one of the most important pieces of mining ground in Cornwall, the lodes which pass through it having proved in the adjoining mine the richest in the county.

At Wheal Owles meeting, on Aug. 21, the accounts for the three months ending June showed a debit balance of 866.8s. 3d. As the debit balance at the end of March was 1276.18s. 1d., this shows an improvement of more than 1600. Capt. Richard Boyne reported that 186 fms. 4ft. 3 in. had been driven in levels, and 27 fms. 3ft. 6 in. sunk in shafts and winzes—196 fms. 1 ft. 8 in. in all. They have 45 paces of men stopping on tur for tin, and 18 pitches on tribute. They have about 200 tons of tin unsold.

At Botallack Mine meeting, on August 19, the accounts for April, May, and June showed a profit on the workings of 618.16s. 9d., which reduced the former debit balance to 99.16s. 4d. Capt. H. Boyne, J. Rowe, and J. Boyne said: "We have 27 pitches working for tin on tutwork. Quantity of tin raised in the quarter is about 10 tons in excess of quantity stamped and sold. Ground produced in the three months in shafts, winzes, and levels, 181 fms. 0 ft. 4 in.; ground stopped on tutwork, 78 fms. 4 ft. 2 in.; ground broken by tributaries, 167 fms. 5 ft. 6 in.—1157 fms. 4 ft."

At New East Russell adjourned general meeting, on Thursday (Mr. J. Watson, F.G.S., in the chair), a call of 6d. per share was made. Mr. Jehu Hitchens was appointed secretary, and the title of the company altered to Wheal Courtney. Messrs. Watson, Dawkes, and Fisher were appointed the committee, and a meeting called for Sept. 17, to forfeit all shares in arrears of call.

At the Royalton Tin Mine meeting, held at 12, Old Jewry Chambers, on August 21 (Mr. T. D. Price in the chair), Captain James Secombe, of Liskeard, was appointed manager, and Mr. T. Thompson, of 12, Old Jewry Chambers, the future secretary, by whom, therefore, the general business of the company will be henceforth conducted. The reports presented to the meeting were highly satisfactory, and fully corroborated all that has been said with regard to this valuable property.

At the Princess of Wales Mining Company meeting, on August 20 (Mr. W. Ward in the chair), the accounts for the six months ending June showed a debit balance of 764.17s. 11d. A call of 2s. per share was made. Capt. Geo. Rickard reported that the engine-shaft is in regular course of sinking by a full party of men, which is now down 5 fms. 1 ft. 6 in. in good killas ground. Every effort will be made to get the horse-whim erected by the time that it is required. Taking into consideration the characteristics of the lode in the air-shaft and adit level, together with several cross-courses which traverse the same, it is considered that they can scarcely fail to open out a valuable mine in depth.

At the English and Australian Copper Company's meeting, on Wednesday (Mr. R. A. Routh in the chair), an interim dividend of 6d. per share, on the 18th day, was declared. Details in another column.

The Australian Mining Company Shareholders' Committee (appointed at the general meeting on July 27) have conferred with the directors, and the resolution for the reconstruction of the company has been fully discussed, the result being that the board and committee conclude that the only effective mode of reducing the liability of the shareholders would be by winding-up the present company by means of liquidation, and establishing a new company, as indicated by the report of the directors of July 20, and presented to the last general meeting. Having regard, however, to the attendant risks in which it appeared upon investigation that the company might be involved by adopting such a course, they do not recommend the adoption thereof; but, on the contrary, there being already the distinct understanding that no further liability will be incurred, or call made by the board, except upon the special authorisation of the shareholders, they are of opinion that it is not advisable at present to make any alteration in the constitution of the company. For the satisfaction of shareholders, every director has signed a memorandum, which has been recorded in the directors' minute book, whereby they severally promise not to make, nor to concur in, any call upon the shareholders, nor to authorise or to approve of the contracting of any liability whereby a call upon the shareholders might become necessary, without first obtaining the sanction of the shareholders.

ers in general meeting assembled, after due notice. Since the last general meeting of the company a letter has been received from Mr. Davenport, the company's agent in South Australia, containing the satisfactory intelligence that he had agreed with 34 farmers—mostly Germans—to take blocks of land, varying in size from about 100 to 500 acres each, and containing in the whole 11,063 acres of the company's special survey of 20,000 at Tungkillo (formerly held by Mr. Baker). The leases to be for 21 years, at prices varying from 2s. to 3s. 9d. per acre, and producing 1500l. per annum for the seven years ending Michaelmas, 1875; which will be increased to 2000l. per annum for the seven years ending Michaelmas, 1882; and to 2500l. per annum for the remaining seven years—all mineral rights being reserved to the Australian Mining Company. In consequence of the decision of the board and committee, above referred to, the directors have decided to divide the surplus funds in hand by declaring a dividend of 6d. per share, which will be payable after Sept. 1.

At the Great Republic Gold and Silver Mining Company Committee of Bondholders' meeting, held at Mr. Williams's office, 25, Poultry, E.C., on Thursday (Mr. T. A. Mundy in the chair), it was resolved that a solicitor be appointed to carry out the necessary enquiries in conjunction with Mr. Williams, and that the bondholders be intimated therewith, to ascertain if they will join the bondholders who have at present registered.

At the Natal Land and Colonization Company general meeting, on Thursday (the Hon. F. C. Drummond in the chair), the directors' report showed that to December, 1867, the balance at the credit of the profit and loss account (after deduction of 847.9s. 4d. written off preliminary expenses) was 10,837.0s. 6d.; more than equal to a dividend of 5s. 9d. per share, on 35,500 shares—10,493.15s. 6d., but, as in 1866, so to that date much of the interest earned in the colony remained unpaid, under these circumstances the directors did not deem it advisable to declare an interim dividend in January last; and, although the overdue interest is secured, and may shortly be realised, still, in order to be fully prepared to meet the payments of all the debenture bonds due in January next, the directors consider that the most prudent course for the shareholders to adopt is to postpone the declaration of a dividend until the receipt of further funds from Natal. The directors cannot but advert to the intelligence which has reached this country within the last few months relative to discoveries of gold in South Africa. In addition to the existence of this valuable mineral in the neighbourhood of the colony, there are extensive and valuable coal fields within its limits, which are now obtaining the attention they deserve. The working of these, and of other minerals, including copper for export, must have a most beneficial effect on the property of this company. The statement of imports and exports shows that the former for the year 1867 of 163,701. and in 1867 of 269,800l., and of exports in 1867 of 27,846l. and in 1867 of 225,671l. The directors' report was received and adopted, and a vote of thanks to the Chairman terminated the proceedings.

COAL MARKET.—This week 114 fresh ships came forward. The demand for all descriptions of coal has slightly increased, and we quote prices generally 3d. higher. Hetton Wallsend, 19s.; Haswell Wallsend, 18s. 6d.; South Hetton Wallsend, 18s. 6d.; East Hartlepool Wallsend, 18s. 3d.; Braddyl's Wallsend, 17s.; Eden Main, 16s. Unsold eight cargoes; 40 ships at sea.

The COMPRESSED COAL COMPANY (Lydney) desire us to state that the Patent Fuel which exploded on board the steamer Briton, at Southampton, was not supplied by them;—"and we may further add, an explosion cannot occur from our compressed coal, as by the patent process used by us all pitch and tar are eliminated, and the coal selected (the Coleford High Delf of the Forest of Dean), though a first-class steam coal, is quite free of explosive gases."

IRON AND COAL IN THE UNITED STATES.—It appears that the quantity of coal imported into the United States in the four months ending April 30 this year was 50,333 tons, as compared with 43,576 tons in the corresponding period of 1867, the value being \$194,621 and \$157,761 respectively. The total quantity of railroad bars or rails imported into the United States in the first four months of the present year was 34,223 tons, as compared with 46,686 tons in the corresponding period of 1867, the value being \$950,515 and \$1,165,596 respectively. The imports of rails into the United States would thus seem to have declined this year, rather an unlooked-for result. The imports of pig-iron in the first four months of this year were 18,783 tons, of the value of \$315,854, as compared with 28,721 tons, of the value of \$655,361 in the corresponding period of 1867. The imports of bar-iron were 10,882 tons, of the value of \$580,281, as compared with 21,313 tons, of the value of \$1,089,530 in the corresponding period of the year 1867.

PREVENTION OF ACCIDENTS ON RAILWAYS.—The recent lamentable accident at Abergele, and the strong suspicion which exists that want of adequate signalling arrangements and of sufficient break power contributed largely to increase the sacrifice of life, has naturally caused peculiar interest to be taken in all that relates to those two important means of safety. Next to the admirable system, for which we are indebted to Mr. SAKBY, whereby it is rendered impossible to display a semaphore signal, indicating safety, unless the switches are in a position which justify that signal, there is, probably, nothing which tends more to secure the safety of the railway passenger than the train-signalling telegraphs, so extensively used upon all the principal lines, and which have successfully stood the test of 13 years practical experience. At the present moment Messrs. TYER and NORMAN's interesting little pamphlet is particularly acceptable, since it furnishes not only a brief history of train-signalling from the time Mr. COOKE introduced his first telegraph for train-signalling on the Great Eastern line to the present time, but also a detailed description of TYER's patent train-signalling apparatus, which is now in practical and every-day use on the principal British railways, as well as on the Continent, and in India. In these improved instruments the exterior indicator on the dial is moved by a soft iron armature, and thick wire is used for the coil, so that ordinary charges of lightning will pass freely through the instrument without injuring it instead of the coil being almost burned up, as it is when the usual very fine wire is used. Messrs. TYER and NORMAN's instruments present many advantages over those previously in use, and should be availed of by all companies whose train-telegraph system is not thoroughly efficient.

LAMP FOR USE UNDER WATER.—Mr. JOHN WARD, of Port Glasgow, has invented an arrangement for supplying light under water: it is an ordinary lantern, with two tubes for the descent and ascent respectively of air. Mr. Ward thinks that the heat from the flame will cause the necessary current of air.

Contract for Coals for Hong Kong.
CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.

THE COMMISSIONERS for Executing the
Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that they will be READY TO TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING into store, or on board Her Majesty's steam-ships and vessels at Hong Kong,

THREE THOUSAND FIVE HUNDRED TONS OF SMOKELESS SOUTH WALES COALS,

Fit for the service of Her Majesty's steam-ships and vessels. The coals to be shipped—half by the 30th September, and the remainder by the 31st October, 1868.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing. Every tender must be addressed to the Secretary of the Admiralty, and bear in the left hand corner the words "Tender for Coals for Hong Kong," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £2000 for the due performance of the contract.

By order, ANTONIO BRADY,
Registrar of Contracts and Public Securities.
Contract Department, Admiralty, Somerset House, Aug. 19, 1868.

PRUSSIAN MINING AND IRONWORKS COMPANY
(PREUSSISCHE BERGWERKE UND HUTTEN-ACTIEN-GESELLSCHAFT).
GENERAL MEETING.

The regular YEARLY GENERAL MEETING, in accordance with par. 26 of our Statutes, will be HELD on THURSDAY, the 17th September of this year, at Four o'clock in the afternoon, at the offices of our company, No. 34, Königsallee, Düsseldorf, when the shareholders are requested to attend personally, or have themselves represented by proxy.

ORDER OF THE DAY.

Report of the direction upon the business operations of the past year, ended the 30th of June last, their results, and the general position of the affairs of the company.

Referring to par. 25 of our Statutes, the shareholders who wish to exercise their right of voting are requested to deposit their shares or receipts (Quittungen) at least eight days before the general meeting, at our office, No. 34, Königsallee, Düsseldorf; in London and Dublin, at the National Bank; or in Cork, at the Cork Steamship Company's Office; in exchange for certificates of deposit, and to leave them so deposited during the holding of the general meeting; as also, in the event of a representation by proxy, to have the proxy papers presented at our office here, for examination by the direction, at latest twenty-four hours before the general meeting.

Düsseldorf, August 24, 1868.

CHONTALES GOLD AND SILVER MINING COMPANY (LIMITED).

WANTED, TO PROCEED to the Company's Mines, Nicaragua, Central America, a GENTLEMAN, of good commercial experience, ACQUAINTED to the MANAGEMENT of LARGE WORKS, and thoroughly acquainted with the WORKING of GOLD MINES.
Testimonials to be forwarded to the Managing Director, GEORGE NOAKES, Esq.; or to—
J. JAMESON TRURAN, Secretary.
185, Gresham House, London, E.C., 28th August, 1868.

WANTED, for COPPER and IRON MINES and WORKS on the CONTINENT, an EXPERIENCED and COMPETENT MANAGER, who understands COPPER and IRON MINING and SMELTING, and possesses a general knowledge of the trade. It is absolutely necessary that he should speak French or German fluently.
Apply, by letter only, enclosing statement of qualifications and references, to "H. F. B.," care of Julian H. Toime, Esq., 1, Victoria-street, Westminster, S.W.

WANTED, a SITUATION as LAND and MINERAL SURVEYOR. Testimonials, &c., on application to "H. J.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, a SITUATION as FOREMAN or ASSAYER at a LEAD SMELTING WORKS. Understands the working of BLAST and AIR FURNACES.
Address, "J. C.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, on a current-going SEA and LAND SALE COLLIERY, situated near NEWCASTLE-ON-TYNE, a LOAN of FIFTEEN HUNDRED POUNDS, for which TEN PER CENT. FOR SIX MONTHS will be given.
For further particulars, apply to "Daby," Post-Office, Newcastle-on-Tyne.

A GENTLEMAN, having a good connection, is OPEN to an AGENCY for the SALE of ORES or MINERALS (of a good class) consumed in CHEMICAL and SMELTING WORKS on the TYNE.
Address, "S. T.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

TO CAPITALISTS.—The Proprietor of the TENDE SILVER-LEAD MINE, situated in the province of CUNEO, requires a CAPITALIST or COMPANY to WORK the said mine upon royalty.
For particulars, apply to Mr. SEBASTIAN GRANDI, No. 1, rue des Ponchettes, Nice, France.

TO COAL AND IRONMASTERS, ROPE MAKERS, OIL MERCHANTS, AND OTHERS.—A GENTLEMAN of active business habits, and considerable commercial experience, with a first-class connection amongst COLLIERY OWNERS and IRONMASTERS, is open to UNDERTAKE AGENCIES for the SALE of IRON, IRONSTONE, and all kinds of articles used at COLLIERIES and IRONWORKS. Has represented a respectable firm for upwards of 20 years. Highest references and security, if required.
Address, "W. F.," Post Office, Burslem.

TO COLLIERY OWNERS, AND OTHERS.—A COLLIERY VIEWER, brought up in the NORTH OF ENGLAND, and having twenty years' subsequent experience at collieries of extent and importance in England and Wales, WISHES for an APPOINTMENT. Will undertake to devote the whole of his time to the duties of an office entrusted to him, and have the works conducted on principles of safety and economy.
Testimonials may be seen at the MINING JOURNAL Office; or they will be forwarded, with references of the highest character, by addressing to "C. V.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

VALUABLE COLLIERY FOR DISPOSAL, either by PARTNERSHIP or SALE. The aggregate thickness of the seams of coal is about 25 feet; there is a specially favourable market for the produce; and careful estimates, based on the prices hitherto realised for the coal, and the cost of the same, show that, with some extension of the works, a NET PROFIT OF THIRTY PER CENT. PER ANNUM may be realised.
Full particulars on application to "A. B.," No. 72, Bishopsgate-street Within, London, E.C.

COLLIERY IN THE WEST OF ENGLAND, FOR SALE, in working order. Railway to pits' bank. Very conveniently placed for shipping port and markets.
Apply, by letter, to "H. M.," at C. H. May's General Advertising Offices, 78, Gracechurch-street, London.

IRON ORE INVESTMENT TO BE DISPOSED OF.—TO BE DISPOSED OF BY PRIVATE TREATY, either in part or the whole, VALUABLE IRON ORE WORKS, having large deposits of ore recently developed, in the MINERAL DISTRICT near WHITEHAVEN.
Address, "A. B.," Post Office, Whitehaven.

IMPORTANT MINING PROPERTY FOR SALE IN RHENISH PRUSSIA.—A BLENDE MINE, giving 3 to 4 tons of blende per fathom; a COPPER MINE, averaging 14 per cent. of copper; and THREE LEAD MINES, with 65 per cent. of lead.
Full particulars, to O. J. YOUNGHUSBAND, Esq., Wiehl, Kreis Gummersbach, near Cologne, Prussia.

FOR SALE, TEN SHARES of £25 each (fully paid up) in a good COMMERCIAL CONCERN. A dividend of £15 per cent. paid last year, and every prospect of a similar one this year.
Address, in first instance, by letter only, to "Z.," 4, Camden-terrace, Gipsy-hill, Upper Norwood, S.E.

SOUTH ROYALTON MINE.—WANTED, TO PURCHASE, an 8 or 10 horse power PORTABLE ENGINE.
Apply to Capt. PARKYN, Roche, St. Austell, Cornwall.

WATER-WHEEL FOR SALE, of the following dimensions:—the wheel is 30 feet by 3 feet, with iron axle, rings, sockets, saddles, and braces; the drawing machine is very good, made on the newest principle, and all in good condition.
All particulars can be had from Mr. W. MATHEWS, engineer, Tavistock.

IN THE TOWER FOUNDRY IS THE TYNE DEPOT FOR MACHINERY of every description in WOOD and IRONSTONE, CORN-CRUSHING, and PUG MILLS. Also, AGRICULTURAL IMPLEMENTS.
PROPRIETOR, G. HARLE, JUN.,
No. 49, MAPLE STREET, NEWCASTLE.

PURCHASERS of PORTABLE ENGINES and STEAM CRANES will do well to ask G. HARLE's price for the same.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Aug. 20	Bronfloyd	50	12 4 0	Peter Glover.
21	Brynpostig	25	11 7 6	Jenkins Brothers.
22	Gothic	7½	11 6 0	Slms, Williams, & Co.
24	Cwmystwith	40	11 7 6	Panther Lead Co.
25	Frank Mills	100	16 8 6	Slms, Williams, & Co.
27	Wheal Trelawny	71	23 17 6	Stock and Co.
	ditto	62	5 7 6	Burry Port Co.

COPPER ORES.
Sampled August 12, and sold at Tabb's Mill, Redruth, August 27.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon	85	£5 14 6	West Damsel	54	£4 18 6
ditto	74	4 10 6	ditto	38	1 4 0
ditto	61	10 1 0	ditto	38	3 16 0
ditto	60	1 2 6	ditto	37	3 14 6
ditto	57	4 7 6	ditto	33	3 18 6
ditto	55	12 12 6	ditto	23	4 19 6
ditto	54	5 5 0	Clifford Amalgamated	66	2 0 6
ditto	46	19 11 6	ditto	58	1 9 6
ditto	36	7 7 0	ditto	52	2 18 6
ditto	35	12 2 0	ditto	51	3 6 0
Great North Downs	102	4 1 0	ditto	14	3 3 0
ditto	84	4 16 6	Phenix Mines	87	3 17 6
ditto	80	4 12 6	ditto	85	3 3 0
ditto	66	5 3 0	ditto	5	16 0 0
ditto	55	5 12 0	Tywarnehallo	8	3 5 6

TOTAL PRODUCE.
South Caradon .. 563 .. £3902 13 6
Great N. Downs 387 .. 1856 6 0
West Wh. Damsel 246 .. 891 8 0
Average standard .. £ 97 9 0
Average price per ton .. £ 24 18 0
Quantity of ore .. 1622 tons
Quantity of fine copper .. 127 tons 2 cwt.
Amount of money .. £ 7926 8 0

LAST SALE.—Average standard .. £105 3 0—Average produce .. 6½
Standard of corresponding sale last month, £ 97 15 0—Produce, 7½.

Names.	Tons.	Amount.
Vivian and Sons	178½	£1177 19 9
Freeman and Co.	179	700 7 0
Grenfell and Sons	115	545 18 6
Slms, Williams, and Co.	167	1130 2 6
Williams, Foster, and Co.	192½	1152 9 6
Mason and Elkington	103	477 14 6
Copper Miners' Company	183½	721 9 3
Charles Lambert	133½	761 11 3
Newton, Keates, & Co.	132	290 12 0
Sweetland, Tuttle, and Co.	238	665 10 6
Total	1622	£ 7926 8 0

Copper ores for sale at Trac's Hotel, Camborne, on Thursday next.—Mines and Parcels.—West Seton 515—Clifford Amalgamated 402—South Frances 150—East Pool 147—South Crofty 118—Wheal Basset 92—Carn Camborne 91—Tincroft 62—North Grambler 31—South Condarrover 32—South Basset 9—1669 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week.—Mines and Parcels.—Prosper United 261—West Wheal Basset 225—East Rosewarne 172—Wheal Margery 168—North Roskear 98—Copper Hill 7

A LARGE AMOUNT of MONEY being EXPENDED in ADVERTISING in WORTHLESS PUBLICATIONS, C. H. MAY will be HAPPY to AFFORD INFORMATION to ADVERTISERS in the SELECTION of the BEST and MOST INFLUENTIAL.

C. H. MAY'S GENERAL ADVERTISING OFFICES.

ESTABLISHED 1846.

ADVERTISEMENTS inserted in all the London, Provincial, Foreign, and Colonial Newspapers.

78, GRACECHURCH STREET, CITY, E.C.

Notices to Correspondents.

COAL IN NATAL.—I have read several notices of the discovery of coal in Natal, but I have seen nothing which gives any indication of a systematic examination of the deposits, nor does any effort seem to have been made to demonstrate its commercial value. I should, therefore, be glad to know (and, perhaps, Dr. Mann, as the representative of the colony, could supply the information) what it would cost to send out a couple of good geologists to examine the districts wherein coal is reported, and upon what terms grants to work mines would be obtainable from the Government.—H. H.

THE AIR-TIGHT SAFETY-LAMP.—"D. F." (Newcastle).—The safety-lamp for burning under water, invented by Messrs. Liante and Denoyel, and referred to in the Journal of June 27, is still attracting some attention in Paris, and has been tested at Havre, but there appears to be some difficulty in obtaining reliable results. The lamp is described as far too large and clumsy for mining purposes, although it is beyond question an ingenious arrangement.

COLORING METALS.—"H. R." (Birmingham).—There is some such invention as "H. R." describes for chemically coloring brass, silver, copper, German silver, iron, steel, &c., in various brilliant and permanent colours; but we are not acquainted with the details, nor do we know whether it is patented in England.

OILS AND GREASES.—"Old Subscriber" (Richmond, Yorkshire) should have stated the purpose for which the book is required, that some idea might be formed as to the work most likely to suit him. There are—Anticell on the Manufacture of Hydro-Carbon Oils from Coal, 10s.; Daddow and Bannan's Coal, Iron, and Oil (chiefly historical and statistical), 36s.; Derrick and Drill—the Present and Future of Petroleum, 6s. 6d.; Dr. Ernst's Coal, Oil, and Petroleum, 10s.; Bowen's Coal and Coke Oil, 10s.—all American works, obtainable through Messrs. Trubner; and Gesner's Coal, Oil, and Petroleum, 7s. 6d., published by Baillière, Regent-street.

Received—"J. E. B." (Potosi, Missouri)—"B. S." (Truro)—"C. H. D." (Paris).

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, AUGUST 29, 1868.

A BOON TO COAL AND IRONMASTERS.

A greater boon than that comprised in the Boiler Inspection and Assurance Companies there has not been found in modern times. Frequent enough, unhappily, as such accidents now are, they are much less frequent than they were before such associations were formed. The principle they embrace was put into operation first for the protection chiefly of the boilers in the cotton mills; but the necessity for its extension to the collieries and ironworks forced itself upon the leading owners of such property in Staffordshire, and an association, now almost confined to those departments of industry was established principally by iron and coal masters. Under the care of its officers there are some 2500 boilers. Of these 1559 are in the southern and 949 in the northern mining and iron districts. These are the figures up to the end of June; since that time the number has increased. The directors met their shareholders on Wednesday last at Wolverhampton, and in their report said:—

"The state of the trade in both of the districts viewed by the company has, no doubt, in some measure retarded the rapid increase which might have been expected; but the directors are quite satisfied with the progress made under the circumstances, and feel confident that with the renewal of commercial activity, now beginning to be felt, still better results will be achieved."

Well may the directors be "satisfied with the progress made under the circumstances," for their profits not only enable them to declare a dividend of 10 per cent. per annum, but also to carry about 500*l.* to the reserve fund, which now amounts to 1500*l.*, and is to be made certainly twice that sum. A higher ground for satisfaction—and it is that to which we desire especially to draw attention—is to be found in the fact that out of all the boilers in the company's care the only casualties in the half-year have been the collapse and rupture of the tube of a Cornish boiler, which was allowed to run short of water; and an injury to the seams of a boiler when not under steam, involving together a total loss of about 75*l.*, which the company paid out of current receipts. A more satisfactory state of things it is difficult to imagine. Much destruction of property and the sacrifice of men's lives have been prevented, with all the attendant loss and misery. How much the proportion of such disasters may be yet further reduced by a prudent forethought on the part of owners of boilers may be gathered from the circumstance that the number of boilers which have exploded in the United Kingdom in the half-year closing with June numbered, as reported, 24. These have caused the death of 21 people, and have injured 33 others. But not one of the 24 was in the care of this association, but the officers of it have taken pains to ascertain the causes to which most of them may be attributed. Corrosion has been the direct cause of five of them. Three of the boilers were so old, or so frequently repaired, as to be worn out. One was so thin as to be unfit for the purpose for which it was used, and in another the angle-iron was faulty. Two had no proper stays. In five the tubes were too large to bear the working pressure without danger. In one both iron and workmanship were bad, and in another the man-hole was insecure. And two were allowed to run short of water.

It is very easy to imagine that if these boilers had all been under inspection very few of the accidents would have happened. Doubtless, examinations and inspections are made by servants of owners, and they are the more thorough in proportion to the class of the firm; but when these are followed by the inspection of men whose avocation has especially trained them to detect evidences of danger which would escape many other men, the proprietor of a boiler may entertain tolerable satisfaction as to the security of this portion of his machinery. The actual work done by the association is very considerable. During the half-year there have been 5897 examinations, of which 793 have been internal, and 624 in the flues; and as many as 834 reports have been sent to the owners. Passing indications of lurking mischief have in several instances led to the officers requesting that they might be allowed facilities for making internal and flue examinations. The issue has been the detection of serious seam rips and other dangerous defects, which must have resulted in explosion if they had not been detected. Corrosion is still found to be one of the most frequent evils, and should be guarded against by keeping all joints properly tight. Very many examples could be given where good boilers have been ruined by leakage soaking into the brickwork in contact with the plates.

The men to whom we entrust the care of our boilers still need much instruction, and through these associations they are being educated in many important particulars. Mr. E. B. MARTEN, the chief engineer, says—

"It gives me pleasure to notice that those in the actual charge of boilers have appreciated the information supplied to them on the subject of boiler explosions, and also on the management of boilers and the prevention of smoke. Until lately the fireman, to whom such valuable property is entrusted, has had nothing to guide him but his own experience."

They have still much to learn; and so, too, have the people who are usually called in to repair boilers.

"Several boilers (writes Mr. MARTEN) of the internally-fired class have given great anxiety from continued leakage over the fire-places and near the bridges, and the plates there have been found seam-ripped, or cracked through the rivet holes, and also they have shown signs of being drawn out of shape by overheating, and yet no improper working could be detected when they were examined under steam. It has, however, been discovered in these cases that, in spite of all remonstrance, the boilers have been emptied immediately on the stoppage of the engine, instead of waiting for 12 hours until the flues had cooled, so that the plates and seams had been unduly heated and injured. This evil habit leads to the need of such frequent repair that rivets are removed from the holes two or three times, and as few plates will stand such punishment, the edges crack when the drift is used to make the old and new work meet, and a seam-rip is formed, which is only covered by the rivet, while the strength of the boiler is not restored."

To this state of things is altogether due an explosion which has done damage to the extent of 500*l.*, and has killed a boy. It occurred about a month ago at Earl GRANVILLE'S Bell's Mill Pit, North Staffordshire. The officers of this association reported frequent leakings

over the fire at the seam which ultimately ruptured, and repairs were made, the last time only a week before the accident. The agent of this society reported the repairs insufficient, and the fire was actually being drawn out to make the repairs complete when, as the last clinker was being taken off the bars, the boiler ended. It had been repaired six or seven times in two years, and most times badly done. If this be going on in such service as the Earl GRANVILLE'S, what may not be expected elsewhere?

The enquiries we have instituted into the cause of seven deaths which have resulted from the bursting of a furnace boiler at the Mersey Iron and Steel Works, Liverpool, convince us that official inspection would have prevented the explosion. The bottom plate, by continual corrosion, was thinned down almost uniformly till in some places it was only 1-16th in. thick. An almost precisely similar state of things led to the explosion of the same class of boiler about a month ago at the Broughton Hall Ironworks, Wrexham, when one person was killed. The practised eye of an inspector would have detected traces of what was going on, although the thinned plates were hid by brickwork.

Most heartily we welcome every effort made to enable us to work our boilers at the minimum of risk. The discussion at Norwich, before the British Association, on Mr. L. E. FLETCHER'S excellent paper, "On the Unsatisfactory Character of Coroners' Inquests on Steam-Boiler Explosions," will do good service; but much more practical benefit will result from careful experiments on a large scale, such as those recently conducted at Wigan. Science is bringing us daybreak in this matter. Truly—

"A wind came up out of the sea,
And said, 'Oh! mists, make room for me.'"

This desirable object (in the prose of Mr. MARTEN) will be facilitated by those who have not already done so placing their boilers under such a system of inspection as this company provides.

THE REPRESENTATION OF THE MINERAL INTERESTS.

The Representation of the Mineral Interests in the New Parliament is one of such vital importance, and so intimately connected with the present prosperity and future development of those vast commercial enterprises upon which the nation's greatness depends, that we feel but little, if any, apology need be made to our readers for again referring to the subject—our only object being, as we before remarked, to show the claims which gentlemen connected with our staple productions have to seats in the Imperial Legislation of the country. Our mining, our colliery, our railway, and our commercial interests have for a long time been depressed to an unprecedented extent; in every department trade has been stagnant, if not altogether paralysed; furnaces have been blown out, mills have suspended operations, and puddlers, furnace-men, and ironworkers discharged from their employ. Prices of all descriptions of iron have been extremely low and unremunerative—so much so, indeed, that proprietors and managers have had to tax their ingenuity to the utmost possible extent to keep their works on "the move," and their establishments from going to utter ruin. Our railways, too, have seen times of depression and prostration almost, if not altogether, unparalleled in the nation's history. Our copper trade has followed in the same course, prices having been lower for a longer consecutive period than for very many years past. The depression in the mining trade has naturally affected the colliery interests, and colliery operations have not, consequently, been carried on with that general activity which characterised them in former years. In a word, the whole mining and colliery world has had to pass through a season of great difficulty, and to experience most trying ordeals. During this depression we have heard a great deal about the diversion of our iron trade into other channels, and it has been said by some that our Belgian neighbours are rapidly rivalling us in the make of iron and other of our staple articles of production. For our own part, we think far too much has been made of this outcry, but, at the same time, it is not a matter which should altogether be overlooked. We still place implicit reliance in the strength of England's arm—in her vast mineral resources—in the indomitable perseverance of her large employers of labour, and the industry and skill of her artisans and working population. But our working classes should be made to feel the identity of their interests in those of the proprietors of ironworks, copper-works, collieries, and other staple productions; this feeling once established, all would strive to their utmost to advance the prosperity of those trades, and thus maintain our country's greatness. Hence, then, the necessity of our great commercial and mineral pursuits being represented by gentlemen of sound practical knowledge, acquainted with the requirements of the trades, and ready to promote their interests.

In the two preceding articles we endeavoured to point out that Mr. H. HUSSEY VIVIAN, the present Member for the county of Glamorgan, and the Right Hon. H. A. BRUCE, the present Member for Merthyr, are two gentlemen eminently qualified to represent those interests in which they are so deeply personally interested. Their seats vacant would create a void in the mining representation of the country, which it would be almost, if not altogether, impossible to fill up. Both gentlemen have had many years' experience of parliamentary life, and their labours on behalf of the mining interests generally are well known and appreciated. We have also said that Mr. RICHARD FOTHERGILL, of the Plymouth, Abernant, and other large ironworks in the Merthyr district, and one of the largest employers of labour in the whole kingdom, would, in our opinion, make a valuable coadjutor of Mr. BRUCE, and we hope, therefore, to see him returned as the second Member for Merthyr. There are other gentlemen, however, connected with mining and colliery operations, of sound practical knowledge, scientific ability, and comprehensive minds, well known, too, in the mining world, whose return to Parliament we, as the representative of these great interests, would hail most heartily, regarding their accession to the ranks of "Mining Representatives" as most necessary and valuable at the present juncture. And, surely, one such gentleman would be Mr. PENDARVIS VIVIAN (brother to Mr. HENRY HUSSEY VIVIAN, M.P. for Glamorganshire), who has announced himself as a candidate for West Cornwall, and, let us say, with every prospect of success. What a thick cloud has hung over the mineral interests of Cornwall for a long time past—how rapidly and how signally has its mineral property depreciated, and what a general exodus has there been of those who had to depend upon the prosperity of the mines for their support. In some districts the most perfect and complete ruin has ensued, and mines now lie altogether unworked. We, however (although we readily admit that present appearances are sadly against us), have firm faith in Cornwall's future prosperity—we believe that better times are yet in store; her mines are not yet exhausted—mineral wealth still remains, requiring, it is true, energy, perseverance, and capital to work; but we believe those appliances are at hand, and, once secured, Cornwall will again see more prosperous times. Mr. PENDARVIS VIVIAN is eminently a "mining man," and, if elected to the seat he now seeks, it would, no doubt, be drawing into more intimate and closer connection those commercial ties which have so long existed between his firm and the copper ore mines of Cornwall. It is well known that the Messrs. VIVIAN are of Cornish descent, the family having been intimately connected with the county for centuries past. The late Lord VIVIAN (uncle to Mr. PENDARVIS VIVIAN) represented Cornwall for many years, and the whole county had just reason to be proud of such representation. Mr. VIVIAN'S father and grandfather were each in their day the greatest miners in Cornwall, being largely interested in many of the principal mines, the grandfather having filled the important office of Vice-Warden of the Stannaries. Mr. PENDARVIS VIVIAN (as the other brothers of the firm) was educated at the Mining College of Freiberg, Saxony, where, of course, he acquired such knowledge as eminently fitted him to discharge those duties which devolved upon him consequent upon his business connections. Since entering upon the active duties of life, Mr. PENDARVIS VIVIAN, as one of the partners of the firm of VIVIAN and SONS, has taken a prominent part in the management of the large copper-works and rolling-mills of Margam, Taibach, and also of the extensive collieries of Morfa, one of the largest in South Wales, where about 180,000 tons of coal are raised per annum. The firm of VIVIAN and SONS have, as is well known, occupied a prominent position in the copper trade for many years past, smelting nearly a fifth of the whole production of copper in the kingdom. As showing the connection, in a commercial point of view, which has existed for so long past, and which still exists, between the Messrs. VIVIAN and Cornwall, we may state that

the Messrs. VIVIAN have always been large purchasers of Cornish ores, and so far back as the year 1818 the then firm smelted no less than 18-89 per cent. of the whole copper ore produced in Cornwall, and in the year 1822 about 20-82 per cent., and since that time the Messrs. VIVIAN have always been very large purchasers of Cornish ores. In the very able and lucid address which Mr. PENDARVIS VIVIAN has just issued to the electors he says—"Although not resident among you, I am proud of my Cornish descent, and from my earliest days have been taught to entertain feelings of deep regard towards Cornwall. Commercially, my interests are intimately bound up with your own, and I venture to hope that I shall be able efficiently to represent their technical and commercial bearings." We think Mr. VIVIAN is quite justified in holding out these hopes to our Cornish friends, when it is remembered that by the scientific treatment of portions of Cornish ores his firm have extracted not only the copper contained, but have successfully treated the argentiferous copper ores, and paid for the silver value as well as the copper value. This branch of the trade was originated by the firm of VIVIAN and SONS, and we believe we are correct in stating that many thousands of pounds have been thus paid to Cornish miners, which but for the Messrs. VIVIAN would have been entirely overlooked. Mr. VIVIAN has recently addressed crowded meetings of the electors in several of the principal towns, where he not only explained his political views, but his identity of interests with those of Cornwall. Everywhere he was received with the greatest enthusiasm—in fact, there was such an unmitigated feeling of expression in his favour that a Mr. BASSETT at once withdrew the opposition which he threatened. There is, therefore, every prospect that Mr. VIVIAN will be returned, and thus the ranks of our mineral and colliery interests strengthened in a most material degree, for, although he has not had any parliamentary experience, he is, as we have endeavoured to show, most intimately and practically acquainted with our great staple productions, and, consequently, will be very ready to uphold all those measures which shall tend to promote the great interests of the mining world. We, therefore, heartily wish Mr. PENDARVIS VIVIAN every success, and hope that the electors will see to it that his election is made sure beyond the shadow of a doubt, for it will be the means of renewing the parliamentary representation of the Cornwall mineral interests by the VIVIAN family, and thus advancing the mining interests of the whole county.

It was at one time hoped and believed that Cornwall would have had the great advantage of another gentleman intimately connected with the mining world as a representative of its vast mineral productions, Mr. H. R. GRENFELL having issued an address to the electors of St. Ives. Mr. GRENFELL is a member of the well-known firm of PASCOE, GRENFELL, and SONS, the oldest house in the copper trade in the country, and he is also a director of the Bank of England. He is an eminently practical man—intimately acquainted with the mining and commercial interests of the country, and as he very aptly stated in his address to his constituents—"I have no interest apart from commercial interest." Mr. GRENFELL has served his apprenticeship to parliamentary life, having now sat in the House for six or seven years, and during that time has supported in the most strenuous manner every measure tending to the prosperity of the mining interests and the expansion of trade and commerce. Regarded in this light, the electors of St. Ives and its tributary boroughs would have had an able representative of its interests had they secured the services of Mr. GRENFELL. Mr. GRENFELL has, however, transferred his candidature to Lancashire, being probably anxious to renew the parliamentary representation of the family with that district, his father, Mr. CHAS. GRENFELL, having previously represented Preston. From present appearances there is every probability of Mr. GRENFELL'S return, and thus the mining and commercial world will not lose the services, in a parliamentary sense, of so able and valuable a man. Whilst referring to the representation of Cornwall, it is with much pleasure we find that Mr. NICHOLAS KENDALL seeks re-election for the Eastern Division of the county, a position he has held for the last 16 years, and the duties of which he has discharged with signal ability. The measure introduced into the House some few years ago relative to the Rating of Mines was to a great extent initiated by Mr. KENDALL, and he was placed upon the Select Committee of the House of Commons in relation thereto. Diversity of opinion, no doubt, exists in reference to this matter, but nobody, we think, can question the honesty of the intentions and the sincerity of the motives which prompted Mr. KENDALL in the steps he took in this measure. In seeking re-election, Mr. KENDALL has, no doubt, a political contest before him of no ordinary nature, but we sincerely hope that the electors will not allow the slight shade of political difference which exists between those of Mr. KENDALL and his opponents to outweigh those great claims which he has as an able supporter of their commercial and mining interests. The mining world at the present moment cannot afford to lose the services of a single gentleman who has the practical qualifications to represent their interests. There are not wanting men who, for the sake of a little brief notoriety, would endeavour to carry out measures vastly inimical to the interest of colliery proprietors and operations, and the practical effect of which would be to cripple commercial enterprise in more respects than one. Modern legislation has paid but little attention to the interests of large employers of labour. The elevation of the working classes in the social scale has been made the popular cry; and although all classes rejoice in the vast strides which have been made in the education, the social condition, and the general improvement of the working classes, still the claims of the large employers and of capital should not be altogether disregarded and overlooked. Make our collieries and our mining operations generally as safe as practical measures can carry good ventilation, but unnecessary restrictions should not be placed upon the winning of coal. Abolish the "truck system" in connection with our large ironworks if you will, but let the rights of the employer be as zealously guarded and as readily recognised. It is because we have carefully watched the tendency of modern legislation that we now advocate the return to the new Parliament of men who are able to protect the mining and commercial interests of the nation. We have no fear of foreign competition so long as England has fair play—a fair field and no favour is all we require and for all we ask. But this fair field should be for the employer as well as the artisan, and there should be no favour shown to one class at the expense of the other. The working men of England will be more largely represented in England's Senate, or, rather, they will have a louder and stronger voice in the selection of senators, than on any previous occasion. We trust—we hope and believe—they will wisely exercise their rights, and that they will see it to be to their interests to uphold those great mining and commercial pursuits which have achieved for England her present greatness, and upon which her future prosperity so vitally depends.

MR. ALEXANDER BROGDEN FOR WEDNESBURY.

The committee of representative voters in the new borough of Wednesbury have selected Mr. ALEXANDER BROGDEN as the candidate to whom the Liberal party are to give their support. In consequence, Mr. ROBINSON, in accordance with the understanding to which he came with the committee, has at once withdrawn his candidature. Mr. ROBERT MALCOLM KERR, Judge of the London Court, has not, however, done so yet, nor is it understood what Dr. KENEALY will do. Mr. WALKER, who is of the opposite side in politics, will, it is believed, go to the poll, and other candidates may yet appear. We trust, however, now that the preliminary choice has fallen upon Mr. BROGDEN, and Mr. ROBINSON is no longer before them, the constituency who are interested in the trade representation of their borough will rally round Mr. BROGDEN, and use every effort to secure his return.

Mr. BROGDEN is a man of enlarged experience, is not a novice in political matters, and knows well what is necessary for the welfare of South Staffordshire, in which, as a proprietor of minerals in Ulverston, he is largely interested; for from that district South Staffordshire is drawing much of its best blast-furnace ore, with also finer qualities of the same mineral, for use in the forge furnaces, as "fetting."

His opponents will make the most of an objection which has been industriously promulgated, with a view to his disfavour. He is charged with being a Tommy-shop master. But this imputation—so far as it reflects unfavourably upon him—has been disproved upon

the clearest and most disinterested testimony. The allegation is made in relation to the Tondou Works, in South Wales, of which Mr. BROGDEN is a partner. In its disproof Mr. BROGDEN has published communications, written from the spot, by men whose letters show that there are hearty enemies of "truck" in every shape, but who, nevertheless, warmly approve what Mr. BROGDEN's firm are doing. Amongst these witnesses are the Ven. Archdeacon of Llandaff, the Roman Catholic priest of Bridgend, and several other dissenting ministers. Their testimony shows that the shop system at Tondou is regarded as a great convenience and benefit. Not the slightest restraint is imposed in any case, and every workman is left perfectly free to buy there or elsewhere. Many adopt the latter course. In testimony of the personal worth of Mr. BROGDEN and his brother, one writer says:—"The BROGDENS are too honourable and kind to keep a truck-shop, which is illegal according to the English law, and an injustice to the employed." These testimonies are not called for by those who know Mr. BROGDEN, and that gentleman's own explanation should, without them, be sufficient explanation and satisfaction to the constituency. He says:—

"We have no shops in Lancashire in connection with our works there, nor at Durham in connection with our collieries there, the towns in those localities containing shops quite equal to supplying all the wants of the people. Our works in Wales consist of ironworks at Tondou, collieries at Maesteg, and in the Ogmore Valley. Tondou and the Ogmore collieries contain a population almost entirely engaged at our works; the nearest town is Bridgend, three miles from Tondou, and ten miles from the Ogmore collieries. In the latter place there are no shops whatever, except one which we opened and carried on until this year, at a loss to ourselves; but we convey men and wives over our railway to Tondou Junction every day free of expense, so as to enable them to make their purchases at Bridgend if they choose. Our men from Tondou frequent the shops at Bridgend very much, and on market days the trains are made to suit their convenience for doing so. There are only one or two small village shops at Tondou. At Maesteg, where we have large large collieries, we have no shops whatever. Our men at all the works are paid on account every fortnight in cash, and the balance in cash at the end of the month. Not one-fourth of the wages is spent in our shops, owing, I suppose, to the feeling against masters' shops; but the farmers all around, finding that they can buy cheaper from us, are constant customers, and the shopkeepers at Bridgend and Maesteg complain that we keep down their prices. Our men make no complaint whatever of the system we adopt. They are, in fact, not Tommy shops in the ordinary sense, but a convenience to the men, which they may use or not, as they choose, and only resorted at their urgent request after being closed for more than 12 months. * * * I am too thoroughly convinced of the importance, to both masters and men, of their having cheap food, to be a party to any compulsion as to where they make their purchases; but in the way in which we carry on our business, and in localities far removed from any town, the cost of living would be greatly enhanced if no provision were made by us for their supply."

EASTWOOD COLLIERIES, IN THE EREWASH VALLEY, NOTTINGHAMSHIRE.

THE HIGH PARK AND MOOR GREEN PITS.

The Eastwood Collieries, belonging to Messrs. BARBER, WALKER, and Co., comprise eight different establishments, at which are raised altogether about 600,000 tons of coal per annum. We were kindly permitted by Mr. ROBERT HARRISON, the principal manager, to inspect the collieries, accompanied by Mr. WESTON, the colliery manager. The establishments are as under:—

- 1.—High Park Pits: two downcasts, each 10 feet diameter, 195 yards deep to the Top Hard Seam, about 40 yards apart; and one upcast, 13 feet diameter, 120 yards deep, being 120 yards distant to the rise or west of the downcasts.
- 2.—The Moor Green Pits are situated about 20 yards from the High Park upcast; they are in process of opening out in the Deep Soft and Deep Hard Seams, and the whole, when completed, is likely to form one of the finest and most extensive plants in the kingdom. The following are on a less extensive scale:—
- 3.—The Willey Colliery: Top Hard Seam worked, 180 yards deep.
- 4.—The Underwood Colliery: Top Hard Seam worked, 160 yards deep.
- 5.—The Watnall Colliery: Top Hard Seam worked, 130 yards deep.
- 6.—The Hill Top Colliery: Top Hard Seam worked, 95 yards deep. [deep.]
- 7.—The Eastwood Colliery: Deep Soft and Deep Hard Seams worked, 170 yards.
- 8.—The Cotmanhay Colliery: Deep Soft and Deep Hard Seams worked, 160 yards, two 8-foot pits; a 24-horse engine and boiler underground hauls coal from the dip.

A large fault running north and south, and another large fault running east and west, form the boundary for the first six collieries, to the west and north; the royalties comprise about 5500 acres, and are the properties of Lady PALMERSTON, Duke of NEWCASTLE, Duke of RUTLAND, Earl MEXBOROUGH, and Col. ROLLESTON. The Eastwood and Cotmanhay Collieries are situated on the west side of the large fault before named, on an area of about 500 acres, belonging to the Duke of RUTLAND, Mr. A. M. MUNDY, and Mr. C. J. PLUMPTRE, so that the whole royalties amount to 6000 acres, or thereabouts. Besides the above, there are two pits situated at Beggar-lee, 100 yards deep, exclusively used for pumping water. These are placed about the centre of the 5500 acres; water levels in the Top Hard seam are driven from them, extending to the north about 2½ miles and to the south about 2½ miles, near to the boundary at their extremity in each case. There are two atmospheric, or open-topped, cylinder-engines here, each 70-horse power; one raises water in two lifts of 14-in. bore, the other in two lifts of 13-in. bore, at present and in the dry season only one engine is required at work. There are also two other engines exclusively for pumping at Brinsley Pits, northward from Beggar-lee, on the same north water levels; one engine is double-acting and condensing of 160-horse power, the other a single atmospheric engine of 70-horse power. These four engines drain the whole of the collieries between the water levels and the large fault to the west, with the exception of Hill Top, which has an independent pumping-engine. By means of cast-iron tubbing the High Park and Moor Green pits, to the dip of the great water levels, are rendered nearly dry, and no pumping is required in them. The water is drawn at High Park by tubs about once in two months.

HIGH PARK COLLIERY.—Two drawing pits; one winding-engine, 36-in. vertical cylinder, 5 ft. stroke; working pressure 40 lbs.; drums for flat wire-ropes 14 ft. diameter. The drums rest on a central wall and the side wall of the house. There are six boilers, five in use. This engine was made and erected by the Butterley Iron Company. The engine works a cage in each pit, each cage carrying two tubs on one level. There is no timber in the pits, except the guide-ropes and the blocks of wood fixed in the walling to which the guide-ropes are bolted. There are 55 yards of tubbing in each pit; the remainder of the pits is secured with 9-in. brickwork. The engine can draw 100 tons of coal per hour; in ¾ hours—that is, from 6.30 A.M. to 5 P.M., and one hour less for dinner—it will draw 950 tons.

These pits have been in operation seven years; the levels from the bottom of the pits extend 1000 yards to the north and 1200 yards to the south. There are double lines of road throughout; the levels are both in the same line, and perfectly straight, so that the north side rises 40 feet, and the south side only 6 feet to the extremity. There are 13 gate-roads on the north side of the pits, to the rise, 90 yards apart, the first five having the work concentrated into the third gate-road by driving a cross-gate at the high end of them, which relieves the expense of keeping four gate-roads open below the cross-gate. The coal is brought down the third gate-road by self-acting incline, and there are six other gate-road inclines made on the north side. The average rise of the seam is 1 in 20, but this is subject to variation for short distances. Barrel jigs and ½-inch steel wire-ropes are used in the inclines; the ropes last four years or more.

Section of the Top Hard seam and the Coomb coal, near the face of the north levels:—

Comb coal, left for roof	2 ft. 3 in.
Clunch	4 ft. 0 in.
Top Hard Seam—1. Roof coal, soft	1 ft. 1 in.
" " 2. Rifer, inferior	1 "
" " 3. Best hard steam coal	1 "
" " 4. Bottom, soft house coal	1 " 4 = 4 10
Fire-clay, holing or clunch	1 0 = 2 ft. 10 in.

The average thickness of the Top Hard Seam is stated to be 4 feet 6 inches, and the clunch above varies from 3 feet to 16 feet in thickness; it is of a loose nature, forms a bad roof, and is always ripped down in the levels and gate-roads up to the Coomb coal, which forms an excellent roof. In the stalls the clunch is kept up by props and timber, the debris from the levels and gate-roads being taken into the stalls for making pillars and filling up vacancies. Each gate-road runs up the middle of a stall, or rather there is 50 yards of face on one side and 40 yards on the other—90 yards of face in all, the coal from which is brought to one gate-road. Each stall is let to three men, called stallmen, who employ all the other men engaged in working and bringing the coal to the top of the incline, under a contract price, in the several divisions of labour—three holers, four

fillers, two timbering and pillaring, six boys as wagoners—12 men and six boys. These will send out 50 tons of coal per day from one stall. The three holers, two timberers, and two of the stallmen commence work at 3 A.M. and leave early; the fillers, boys, and one stallman commence at 6.30 A.M., ending at 5 P.M. The contract with stallmen applies to labour only, no materials are included. A line of rails is laid down on each side of the gate-road end, which is extended along the face as the fillers dispose of the coal which is got down ready for them, until they reach the extremities, where they will meet the adjoining stalls on either side, when the rails are removed and the road laid down as before for another fall. The timberers bring up continuous pillars after the face of work with stone obtained from the gate-roads, the space between is filled up tight with material from the holing, small coal, and other debris. Besides the props, stretchers are placed to support the roof between the face and the props at regular distances, whether required or not, as the clunch overhead contains sigillaria in great quantities, which drop out often without giving any warning, and have caused numerous accidents. In addition to those men engaged in getting coal by contract, there are nine others employed at nights after the pit has stopped, in ripping down the clunch in the gate-roads. The levels and gate-roads are made 12 feet wide, the height varies with the thickness of the clunch, if that is 4 ft., which is the ordinary thickness, the road will be about 9½ feet high, and in some places it will reach 21 feet, the debris being all stowed in the goaf. There is only a small production of fire-damp in this seam, but ventilation is maintained to meet a large quantity, should it ever occur. Fire-damp in variable quantity is given off from the Coomb coal, when the top is being ripped down. The men engaged at this work are constantly provided with Clanny lamps to examine their places before and after firing shots. There are other five men at nights employed in clearing and repairing the roads throughout the pit, being also employed by the company. There are three deputies or overmen employed, in three turns, in the 24 hours, each of whom inspects and travels the whole pit in eight hours, and who report the state of the pit, and any occurrences, to the resident agent. There can, we think, be no question that this is an excellent specimen of long wall working—apart from the contracting system—and well worthy of imitation in the fiery collieries of the Barnsley district, where the roofs will be as good, or better, than that we have attempted to describe. The system is advantageous, in the large quantity of coal got from a limited space and brought to one road from 90 yards of face; in filling up the goaf, whereby no space is left for accumulation of fire-damp, the roof thus gradually settles down without breaking, the stones being brought sometimes from a considerable distance for stowing, in order to carry out measures of safety. This system may not apply to every situation, as the conditions of coal, roof, and floor are so variable. The same seam worked at adjoining collieries—Annesley and Hucknall—approaches close to the Coomb coal, whereby a much safer roof is obtained in the stall working; the height in gate-roads is probably obtained by cutting the bottom, which may serve as well the purpose of filling up the goaf. No doubt the slight inclination of the seam, and the moderate produce of fire-damp at High Park, are favourable points in the system, but as it avoids the elaborate use of doors and extensive air-courses we think both safety and economy would be attained in other localities by its adoption, as the effect of completely filling the goaf and preventing great falls of superincumbent strata would be to confine the range of fire-damp to the air-courses along the face of the work, where it can be swept off by good ventilation.

The south levels are driven 1200 yards from High Park pits, and 14 gate-roads are driven out of them, 90 yards apart; seven inclines are made, the coal from the first five gate-roads being brought down the third, as described on the north side. The face of work is thus about 2200 yards long, but the whole of this is not at present worked. This is ventilated by eight divisions of air; 60,000 cubic feet per minute is stated to be passing down the pits, and 4000 of this will, probably, be scaled off to the stables, leaving 56,000 cubic feet, or 7000 cubic feet per minute for each division. There are two furnaces at the bottom of the upcast pit—one 9 ft. long, 6 ft. wide—54 ft. area; and one 6 ft. long, 4 ft. wide—24 ft. area. The pit is 120 yards deep, and 13 ft. diameter; 100 tons of coals are consumed per week by the furnaces, equal to 11½ lbs. per minute, and 1 lb. of coal to 2701 cubic feet of air in circulation. The large proportion of coal used is attributed to the shallow upcast, the returns are understood to be of proper size, the furnaces should not be more than 5 ft. long, and of any width, to be worked effectually. A fan is proposed to be substituted here for the furnaces; no particular make of fan has been fixed on, but one which is popular in South Wales is likely to have the preference. Instead of erecting one large fan it would, perhaps, be conducive to safety to adopt three smaller ones, each fan to be worked by an independent engine; while one was stopped for repairs, the other two would be kept in action, at an increased speed if desired. The same observation would apply to Mr. NIXON's ventilator, two or three of them being preferable to dependence on one only, and where the cleaning and repairs of numerous valves is involved in the question. There are 33 horses employed in the High Park Pits, and 16 ponies and asses, the latter being employed in the stalls. It is intended to substitute engine power for all these horses; the power proposed is by compressed air-engines, to work endless ropes, one for each side of the pits, for which the levels are admirably adapted, being straight, and the undulations have been made uniform to some extent. On the north side the main level has a 40-yard pillar on the rise side, and a 10-yard pillar on the dip. On the south side of pits no pillars are left, the coal is taken wholly out, the roads are found to stand better on this plan; on the north side the contrary was the result, after trying both ways.

The longest gate-road is 792 yards; they decrease in length towards the extremities. Each tub of coal is weighed by machines placed near the bottom of the pits, one at each side. After the coal is drawn up the pits it is taken to the truck siding; the best is taken for steam coal, the remainder is taken in the tubs to the two screens, and separated into three descriptions of coals—large, cobbles, and small—for house and other purposes. No fault has been found in the High Park Colliery; in the great water levels, five miles between their extremities, no fault is found until the 20 yards downthrow to the north is met, which forms the boundary in that direction. About 100 yards of solid coal is left on the site of the pits for their support; there are 70 yards of arching at the bottom on each side, 10 ft. wide, and 10 ft. high from rails, after that the road is sustained by timber, principally stretchers for the clunch. The other six collieries at work are worked on nearly the same principle of long work, with the same care observed in measures of safety.

MOOR GREEN PITS.—One downcast and one upcast pit, each 13 ft. diameter, 48 yards apart, have lately been sunk to the Deep Hard seam, 290 yards depth, the Deep Soft being 14 yards above. The Levels are driven out in the Deep Hard about 100 yards on each side of the west or upcast pit, nearly in a north and south direction. From the pit there is one branch road for the laden wagons, and another branch for the empty wagons, which unite 55 yards away. The arching between and around the pits is 20 feet wide, and 20 feet high from the rail; beyond this the arching is made 12 feet wide, and 12 feet high. The Deep Hard coal will be drawn at the west pit, and the Deep Soft at the east pit. Two cages in each pit, drawn by one engine: each cage will hold four wagons, on two decks, for which two levels will be provided, both at bottom and top of the pits. The upper deck will be supplied with wagons on a road from the north side, raised 5 feet; and the lower deck will be supplied at the present level, from the south side of the pit. The same arrangement will be adopted in both pits, allowing the wagons to be changed to either pit, and saving the hoisting of the cages. The Deep Soft coal will be worked altogether to the dip of the pits by engine-power, and the Deep Hard will be worked only to the rise, so that the proximity of the two seams may not interfere with the safe and economic working of each, the working of one being delayed until several years after the other has been worked in the same area.

Section of Deep Hard Seam at bottom of West Pit:—

Soft coal	TOP RASS OR OIL SHALE.
Main hard	0 ft. 10 in.
List, or bass	2 4 = 3 ft. 2 in.
Clutch	0 ft. 3 in.
The Deep Soft Seam is also about 3 ft. 2 in. thick.	0 9 = 1 ft. 0 in. holing.

A block of coal 300 yards square will be left at the site of the pits in

both seams, to ensure their stability. The pits have been sunk by two old atmospheric engines of 12 and 10-horse power each, which are still drawing, with two flat hemp ropes each.

The two large winding-engines are in course of erection in one house, between the pits; each has two vertical cylinders, 30 inches diameter, 5 feet stroke, 45 lbs. working pressure, direct-acting to the drum shaft on each side of it; drums 16 feet diameter, for flat ropes, placed on two strong central walls, these walls being extended to the other end of the house for the second engine. Two donkey engines erected in the house for feeding boilers, each 8½ inches cylinder, 8 inches stroke, 6 inches ram. There are twelve boilers in course of erection, 36 feet by 5 feet each, and flues communicating with two tall chimneys. The engines will be capable of drawing each 1000 tons per day, and are made by Messrs. Thornhill and Warham, Burton-on-Trent.

TUBBING.—At the top of the pits there is 20 ft. of walling, water-tight; below that 90 yards of cast-iron tubbing, each course 3 feet deep; ¾ in. thickness of metal; below the tubbing the pits are walled throughout by 9-in. brickwork. The tubbing in the downcast is built in the ordinary way, with the flanges outside; that in the upcast has the flanges inwards, and the space between the flanges is filled in with 4 in. fire-bricks; this leaves the flanges only exposed to the action of the heat and acids in the shaft, and allows the joints to be seen and repaired. It is proposed to place a 9-in. brick partition in the upcast, and a 3-in. plank partition in the downcast, to receive and support the guide-ropes; it will also allow of coal being drawn on one side while men are going down the other. Three guide-ropes for each cage—two fixed to partition, and one to pit side opposite. The water will be drawn by tub, very little at present. The Cotmanhay two 8-foot pits have 50 yards of tubbing in each, put in 30 years ago, in 12 years had to be replaced in the upcast; the principle of inside flanges, understood to have first been introduced here, at this time, by the manager, Mr. R. HARRISON. Tubbing has also been applied in the Willey pit, and at neighbouring collieries—Annesley, Hucknall, Shireoaks, Cinderhill, and Kimberley.

Several establishments in this county are working large quantities of coal—Cinderhill, Mr. NORTH's colliery, 800 tons per day, 250 yards to Top Hard; Kimberley, Mr. NORTH's colliery, 800 tons per day; Annesley, 460 yards deep, and Hucknall, 450 yards deep, are opening out in the Top Hard, will each be equally extensive; and Shireoaks, the Duke of NEWCASTLE's colliery, 520 yards to Top Hard seam. The Staveley, Clay Cross, Butterley, Sheepbridge, and other Derbyshire collieries have the same seams as those worked at Eastwood. Coals are worked at some of these to the extent of 100,000 tons per annum. These seams belong to the middle series, and are identified with the South Yorkshire seams, the Top Hard being the Barnsley thick bed. The black shale and Kilburn seams found below the Deep Hard seam are in the lower series, and are identified with the seams worked in the district about Sheffield. Sir R. CLIFTON has lately proved coal by boring on his estate near Nottingham, said to 4 ft. 7½ in. thick, 187 yards deep, and to be the Top Hard seam.

With all these openings in prospect there will be no lack of a future supply of fuel, more than sufficient, it would appear, for the demand for it; but new sources of coal consumption are continually arising in iron and other manufactories, railways, steam navigation, and for house purposes; the increase of late years having been at the rate of 2½ millions of tons each year, so that this will be fully supplied by the new establishments.

[We shall give a Section of the Strata at High Park Colliery in next week's Mining Journal.]

COAL IN NATAL

The coal deposits of Natal were prominently brought before the British Association for the Advancement of Science by Dr. MANN, whose paper will be found in another column of this day's Journal. In point of intrinsic value, Dr. MANN places the Natal coal between that of Cardiff and that of West Hartley, the sole drawback of the colonial coal being the percentage of ash and clinker which it contains, and it is believed by many that this objectionable quality will not be retained when depth is reached. The position of the principal coal deposits with respect to the shipping ports has hitherto prevented the coal being worked, and it is hoped that it will now be found possible to get the mineral down to the coast at a price that will permit of its being sold at rates which will induce vessels trading to the Eastern seas to use it as freely as European steam coals. The results of the experiments recently made on board the surveying ship Hydra, and just communicated officially to Dr. MANN by the Colonial Secretary of Natal, certainly justify this anticipation. The subjoined table shows the time taken and coal used to get up steam with the three classes of coal, and the result and averages as regards consumption of coal per hour, the same quantity of water being converted into steam in each instance:—

Quality of coal.	Raising steam.		Consumption per hour.		
	Time.	Weight.	Third grade.	Second grade.	Average.
Cardiff.....	60 m. ..	26 cwts.	1553 lbs.	1624 lbs.	1588 lbs.
Natal.....	55 m. ..	30 cwts.	1568 lbs.	2128 lbs.	1848 lbs.
West Hartley..	50 m. ..	32 cwts.	1648 lbs.	2293 lbs.	1970 lbs.

The facility for keeping up steam with Natal coal is not so great as could be desired, but this is evidently owing to the large proportion of ash and clinker; and as there are many cases in which a regular supply of steam is of far greater importance than rapidity of generation, the coal will no doubt come largely into use. The Colonial Government are about to have a geological survey of the coal-producing district made, and a competent mining engineer has been recommended by the director of the Royal School of Mines in London to undertake the duties: his report will be looked forward to with much interest by all who desire the welfare of the colony, and will doubtless be of value in connection with its mineral resources generally.

MINING AND TUNNELING BY MACHINERY.

Reference has frequently been made in the *Mining Journal* to the improved machinery for cutting tunnels and adits, and driving levels, introduced by Capt. PENNIE, and as the admirable way in which it has worked at the Vaugirard Quarries, near Paris, has brought it into great favour, some further account of its mechanical arrangement will not be uninteresting. The piston-rod or cylinder is cast in one piece with the cutter head, into which are fitted the steel chisels or cutters. The end of the piston within the cylinder proper is somewhat larger, and the extreme length of the stroke is only about 6 in. In working, the piston, and consequently the cutter head, makes from 300 to 500 strokes per minute, the strokes varying from 1 to 3 inches in length. A slow rotary movement is also imparted to the cutter head, the pace of which is varied according to the nature of the rock. The compressed air or steam passes from the compressors or boilers to the main cylinder, through a small vertical cylinder placed immediately behind it. The steam-valves are worked by a slide or piston enclosed in the small cylinder, the slide or piston itself being worked by a small auxiliary engine. The sledge or under support of the fore part of the machine is made in two parts; the central part being fixed and supported by, and sliding on, the bottom of the cutting, and the two side pieces being movable or adjustable, and turning at their hinder ends on axes or studs. When it is desired to cause the fore part of the machine to rise, the movable part of the sledge is adjusted by means of two screws. There is a main shaft driven by the small engine, from which are derived all the motions of the machine, excepting the striking motion of the cutter head. There is a transverse shaft, which transmits the rotary movement to the cutter head by means of intermediate shafts and wheels, whilst a second transverse shaft, by means of screws and screw wheels, works two parallel shafts, which in their turn give motion to the rough or spiked wheels, which carry the machine. The tyres of the wheels are formed to a curve corresponding with the cutting that is being made by the machinery. There is also a transverse shaft, which sets in motion by means of endless chains and chain wheels an endless chain of scrapers or rakes which remove the debris—the rakes work upon revolving square blocks. Above the machine there is a third rough or spiked wheel, which is constantly pressed upwards by a strong spring against the roof of the cutting, and serves two purposes, as by pressing the peripheries of the carrying wheels they offer more friction, and consequently hold more firmly when propelling the machine forward than would be the case were the weight of the machine simply depended upon, and the head wheel, together with the carrying wheels

and weight of the machine, offer the requisite resistance to the back thrust consequent on the forcible striking of the cutters against the face of the rock.

The importance of a machine capable of making an average progress of 12 ft. in 24 hours' work in granite will be at once recognised, and there can be no doubt that the invention will be extensively adopted as soon as its merits become more generally known. The introduction of having fewer openings in the cutter head, which give it the form of a Maltese cross, removes the principal difficulty met with in using the machine as originally designed, whilst the improvements in the chisels and other details resulting from experience gained have rendered the machine as near as may be perfect.

With regard to the continuity of the working and the strength of the machine, the statements of Mr. FELLOTT, which have already been referred to in the *Mining Journal*, are all that could be desired; he says that the sole interruption in working will be that resulting from the removal of the blunted chisels and the fixing of fresh ones. The changing of the chisels will not, according to Capt. PENRICE, occupy more than two hours. All that is necessary is to draw back the machine a few feet, so as to allow a couple of workmen to pass in front of the head through the openings already mentioned, to remove the worn chisels and replace them with new ones, two other workmen behind the head unscrewing and re-tightening the nuts. As to the strength of the machine, and the absence of vibration, Mr. FELLOTT says that the construction of the machine, in general strong, compact, and even heavy, and in particular the dimensions, form, weight, and nature of the percussion cylinder, as well as the mode of work, appear to him calculated to obviate in a great measure the inconvenience of vibration, to remove the causes of rupture in the several parts, and to render the machine durable. The Commission appointed by the French Government to examine the invention have witnessed its operation at the Vaugirard Quarry, and have returned their report to the authorities, but permission to publish the result of the investigation has not yet been received.

REPORT FROM NORTHUMBERLAND AND DURHAM.

AUG. 27.—The Coal and Iron Trades show some signs of improvement; for most descriptions of coal and coke the demand is increasing, although slowly, and the stocks held are decreasing. Some excellent orders have also been received on the Tyne at the ironworks, shipyards, &c., including large Government orders received at the Jarrow shipbuilding yards. Steam-ships for the Royal Navy have been ordered there of large size, and of great value, sufficient to keep them busily employed for two years, the total value of such ships being 500,000*l.* On the whole, the state of trade and commerce is certainly improved, and there is a better prospect.

The deep sinking still continues to go forward at the Felling Colliery, near Gateshead; a depth of 68 fathoms, or 408 feet, has been sunk below the well-known Hutton seam, making a total depth of 1068 feet, and two seams have been passed through, probably the Beaumont and Harvey seams, and it is intended to proceed still further to a considerable depth, when it is expected that another good seam will be reached.

At the British Association meeting a paper has been read by Mr. Jones, and it is there stated that 1,500,000 tons of coal can be saved in the iron furnaces of Great Britain. What quantity can be saved at collieries it will be difficult to estimate, but it must be very large. Jukes's patent furnace is acknowledged to be the best ever brought into use in this district, both as to economy of fuel and entire absence of smoke. But the objections urged against it have been—first, heavy first cost; and, secondly, heavy charges for keeping it in repair; these are the most serious charges brought against it, and, in some cases, the use of them has been discontinued after a trial extending over a considerable period. However, we had lately an opportunity of seeing these furnaces in operation on a large scale at the Pelton Fell Colliery, where eight of these excellent furnaces are working, and they appear to give entire satisfaction. Only small coal is consumed, and no clinker is formed, while the ash remaining is very small in quantity, and there is an entire absence of smoke; and what is very important, the repairs extending over a period of two years and upwards have been very light. We have, therefore, in this case a practical example of the advantages connected with the use of this admirable furnace. No doubt great pains have been taken in having the machinery connected with them properly adjusted, and doubtless the cause of their failure, in some instances, may be traced to want of care and close attention in this respect.

There was a good attendance in the Exchange, Middlesborough, on Tuesday. The market was decidedly firmer, but prices remained unchanged, as follows:—No. 1, 46s.; No. 2, 44s.; and No. 4, 42s. per ton. An advance of 6*d.* a ton was reported from Glasgow, and this improved the Middlesborough market. Although there was no rise in the Tees-side prices for immediate delivery, parcels of pigs were sold for delivery next year at considerably advanced quotations. In finished iron there was not much change. There is a good demand for rails, but shipbuilding iron is far from brisk.

The adjourned inquest on the body of the man killed by the explosion at Threlkington was held on Tuesday. Mr. Atkinson, Government Inspector of Mines, was present, and Mr. William Woods, viewer, represented the owners of the pit; there were also present Mr. J. Smith, viewer of Thornley Colliery, Mr. W. Armstrong, viewer of Wingate Grange, and Mr. Fletcher and Mr. Watson, underviewers at Coxhoe Colliery. After a most careful investigation the jury returned a verdict of "Accidental Death."

The Bedlington Ironworks were offered for sale by public auction, at the Queen's Head Hotel, Newcastle—Mr. N. Hurst, auctioneer. The mansion-house, works, cottages, and entire plant, tools, and accessories necessary to the current going of the works, were included in the concern, which was offered for competition in its entirety. After a few bids it was deemed desirable to put in the reserve bid of 10,000*l.* and the property was subsequently withdrawn. One of the company offered to negotiate for the works alone, and it was agreed that in the course of a few days arrangements should be made for him to do so.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

AUG. 27.—The various ironworks in North Derbyshire still continue rather quiet, and at but few of them are the men kept what may really be called fully going. This state of things has now lasted a considerable time, and from enquiries made there does not appear to be any immediate prospect of a material change for the better. At Clay Cross it appears that the furnaces have been out, whilst at other places only a part are in blast. The works at Oakerthorpe are still standing, although for some time past it has been rumoured in the locality that the two furnaces were about once more to become a beacon for the neighbourhood. There is a little more doing at some of the collieries, but the improvement has been so slight as to be, so far, almost imperceptible. To London the tonnage for the month is not by any means so large as might be expected, considering that consumers' stocks must have become very low, owing to the small consumption which must have taken place during the excessive heat of the last two months. Orders, however, may now be expected to come in more freely, and a much better state of things may be looked forward to. To Birmingham and the Midland Counties a moderate tonnage continues to be sent, but there is no alteration in the business doing from the Burton district to the West of England. As a somewhat singular fact, it may be stated that one of the principal brewery firms in Burton is importing coal from Wales, although there can be no doubt that a good, and in every way suitable, coal could be obtained less than a dozen miles from the town so famed for its "bitter, mild, and pale," and as a matter of course, at a much less price. Just now there is a little more quietness in the northern part of the county than there has been for the previous two months, the candidates for parliamentary duties having exhausted themselves, and left the work to their "friends," who content themselves with occasional squibs and cartoons, more amusing than pointed. It may, however, be stated that Sir R. Gresley, Bart., a large landowner and mineral proprietor, is a candidate for South Derbyshire, and, it is said, with very fair prospects of success.

The improvement in several branches of the Sheffield trade, previously noticed, still continues, and some of them are becoming quite active. In heavy steel goods and railway material many firms are now fully going. On the other hand, however, there is not much alteration in the general cutlery businesses, although some of the houses more immediately connected with the colonies are doing pretty well. In the neighbourhood of Rotherham, matters appear to have taken a turn for the better, and the large ironworks there are gradually improving in activity, and give promise of being kept well going during the autumn and winter. At Milton and Elsecar also business continues good in nearly all departments.

The South Yorkshire Coal Trade remains without much alteration, but if there is any change it is for the better. In steam coal a very good busi-

ness continues to be done with Grimsby for the North of Europe, and, in all probability, will continue so long as the Baltic ports remain open. The demand for London does not improve, and, so far, there has been no intimation of a reduction of the rate of the Great Northern Railway Company. Indeed, the confident manner in which Mr. Watkin spoke of a reduction taking place, through the intervention of the Manchester, Sheffield, and Lincolnshire Company, it would appear was not warranted by what has since transpired, as it is stated that the Great Northern have declined to alter the rate, but have suggested to Mr. Watkin that his company had better make a reduction on their line. To Lancashire there is a very moderate business being done, and the demand for house coal and engine fuel is of a very moderate character. Coke continues in very good request, both for the home works and for exportation.

Mr. Edw. Wilson, colliery proprietor, Farnworth, was summoned before the county magistrates at Bolton, for neglecting to provide sufficient ventilation in his mine. Mr. Dickinson, Government Inspector, and a collier in the defendant's employ, proved that on the 12th inst. there was black-damp in several places in the pit in such quantities as to endanger the lives of the men at work. The underlooker's excuse was that several "faults" had taken place in the roof through which gas had accumulated.—Mr. Dickinson remarked that the matter might have been easily remedied by bratticing, or by laying air-pipes to the places choked with foul damp.—The magistrates fined Mr. Wilson 6*l.*, including costs.

REPORT FROM SCOTLAND.

AUG. 26.—By a speculative movement there has been a scarcity of Pig-Iron warrants, and "bears" requiring to cover their sales, prices have stiffened this week, and a large business was done yesterday at 52s. 10*d.* cash, and 53s. one month, with an advance in some brands of makers' iron of from 6*d.* to 1*s.* 6*d.* per ton. This increase is purely on account of speculation, although there are considerable exports to America, and an increased home demand from foundries and malleable ironworks. The shipments this week from all the Scotch ports of pig-iron are short of the corresponding week in last year, being only 9250 tons, against 14,860 tons. The imports from Mid-derborough are on a large scale, and contracts are being entered into for regular supplies for a period of several months forward, by firms who formerly used nothing but Scotch pigs. To-day about 8000 tons were done at 52s. 10*d.*, and 53s. cash, and 53s. 1*d.* and 53s. 3*d.* one month, closing buyers 53s.; sellers, 53s. 1*d.* cash. No. 1, Coltness, 59s.; Gartsherrie, 57s. 6*d.*; Glengarnock, 56s.; Langloan, 54s. 6*d.* Malleable iron is meeting with a spirited demand since prices improved, and the number of specifications have increased. This is partly owing to the fact that the orders for fall shipment have been too long delayed, and partly to the surmise that iron is on the eve of a rise; and we hear that firms here are refusing to quote for shipment a few months hence. The following brands are now 6*l.* 12s. 6*d.* per ton:—Coatbridge, Coats, Clifton, Drumpeller, Gartosh, Monkland, Mossend, Muirkirk, Phoenix, and Rochalloch; the remaining brands are quoted 7*l.*—Blochairn, Glasgow, Govan, and North British. Rails are as last quoted, with some enquiries for railway material for the North of Scotland and New Zealand. Ironfounding is better, and altogether there is a healthier tone in this market.

The RICHARDSON PROCESS OF PUDDLING, noticed by us some time ago, is making satisfactory progress, as worked by Mr. Beardmore, at Parkhead Forge, near Glasgow. A new hooded-rabble is being used, which prevents the disengaged silicon from being blown upwards to the top of the furnace, and adhering there, to the injury of the roof; it also prevents the sparks from showering through the stopper-hole on the hands and other exposed parts of the puddler while at work. Mr. Beardmore testifies to the superior quality of the iron made by the Richardson process from mixtures of commonest pigs, and also to the fact that it produces no bad iron. Further improvements of this process form the subject of a joint patent between Messrs. Richardson and Beardmore. At some works in England the use of the tubular rabble has been supplanted by injecting the blast through a pipe introduced through openings, and the iron produced is said to be excellent in quality. At Parkhead an alternate admission of steam and air has been tried through a central vertical pipe with varying effect. The process, as a whole, may be said to be a practical success, and of great utility.

Coals are slow in improving, and the demand is again falling. Main or shipping coals are quoted 5s. 6*d.* to 6*s.*; household, 7*s.* to 7*s.* 6*d.* a ton; burnt coal, for steamers, 11*s.* 6*d.* to 12*s.* 6*d.* a wagon, all f.o.b. in the Clyde. During the week the shipments foreign and coastwise were 24,110 tons, against 39,980 tons in the same week of last year, making a difference of nearly 16,000 tons.

The miners at Govan Colliery are now out on strike, having refused to accept of 6*d.* advance offered by the proprietor. On Friday evening last, having got lessons in "rattening," a motley group, preceded by a flute band, marched up to a house in the Cathcart-road, occupied by a man named Dick and his four sons, all of whom are employed at the Govan Colliery, and smashed every pane of glass in the windows. The cause of the outrage was the refusal by the Dicks to take part in the present strike. Colliers were brought down from England last week for this work, but they were intercepted by the Union men and sent back. A portion of the miners who had been on strike in the districts of Hurlford and Galden, Ayrshire, having returned to their work, a novel method of intimidation was resorted to by the party who remained out. A meeting of colliery wives, called by the common bellman, was held on the banks of the Irvine, and a resolution unanimously carried to the effect that the infamous "black nebs" should be assailed while on their way home from the pits. Accordingly a large crowd of women, girls, and young lads collected in the afternoon on the roads leading to the various collieries, and when the men in question made their appearance they were met with a perfect storm of boiling and opprobrious epithets, and a volley of stones were also discharged at them by the rioters, and several are said to have been severely injured. Threats were freely expressed that the "black nebs" would be attacked on their way to the pits next morning, but a strong detachment of police being then on guard the rioters did not make their appearance. A number of the leaders having been apprehended were taken before the magistrates at Galden, on Monday, and handsomely fined for their Amazonian exploits.

The miners of Fifeshire held a meeting in Dunfermline, on Monday, when Mr. McDonald informed them that the 4800 miners in Fife worked more than 11 hours a day, or 1*s.* less than the miners in the other districts, who worked shorter hours. This had the effect of getting the Fifers to immediately agree to a resolution to go and demand an advance of 1*s.* a day from their employers. They were further instructed to vote for Mr. H. Campbell for their district of burghs, who is unconnected with and unskilled in mining operations.

The Clyde shipbuilders keep busily employed, new keels being laid down on every vacated stage with great rapidity. During the week there was launched from Govan a gunboat of composite construction, built to order of Her Majesty's Government, and intended for service in the China Seas. She was named the Hart, is of 500 tons, and 120-horse power engines, trunk horizontal arrangements, with double screw. Also there was launched, by Caird and Co., Greenock, another gunboat, of composite construction, of 3000 tons, for the North German Lloyd's Company, which was gracefully named "Main" by Miss Wagemann, of London. The Main will be supplied by Messrs. Caird and Co., with engines of 600-horse power, and will ply between Bremen and New York, via Southampton. During the past three months Messrs. Caird and Co. have launched on the 22*d.* of each month a steamer of upwards of 3000 tons, the value of which when completed will be upwards of 250,000*l.* Another steamer of equal tonnage will be launched for the same company by Messrs. Caird in a few weeks.

MR. JAMES MERRY, M.P. FOR THE FALKIRK BURGHES, AND MR. ALEX. McDONALD, MINERS' SECRETARY.

Last week Mr. MERRY, M.P., addressed between 1500 and 1600 of the electors and non-electors of Airdrie in the Public Hall of that town, and, on a show of hands being taken, Mr. MERRY was declared to be a fit and proper person to represent that constituency in Parliament. Immediately after the member's address was concluded a commotion was visible at the door of the hall, out of which issued, like an exhalation, Mr. ALEXANDER McDONALD, secretary of the Miners' Association for Scotland. His entrance was announced by a mingled hurricane of cheers and hisses. The question as to whether he should be permitted a *locus standi* on the occasion was acknowledged *ex gratia*, when he commenced "heckling" the hon. member, by putting a series of miners' questions, which appeared to be regarded by the interrogator as wholly unanswerable in favourable terms. As the questions consisted principally of queries which form the staple of miners' grievances, we notice a few of the leading ones, and Mr. MERRY's replies.

Mr. McDONALD: Would Mr. MERRY support a measure in Parliament whereby a large increase of Inspectors of Mines would be made, and also a body of sub-Inspectors appointed, so as to have the inspection properly carried out?—Mr. MERRY said he certainly would support such a measure. He thought it for the interest of every mine owner to have his works well inspected and looked after, and he had no objection whatever to additional Inspectors being appointed. (Cheers.) But he certainly would object to sub-Inspectors, for the reason that they would take considerable responsibility off the head Inspectors, and also because they were very likely to create a good deal of contention with the mine owners.

Mr. McDONALD: Would Mr. MERRY support a measure to make mine owners responsible for the conduct of their managers when they neglected their duty—(cheers, and much hissing)—or, in other words, would he vote for a bill to reverse the decision of the House of Lords in the case of "WILSON v. MERRY and CUNNINGHAM?" (Laughter, applause, and hisses.)

Mr. MERRY: I really think that Mr. McDONALD must anticipate my answer to that question. (Laughter, and a voice, "I think so too.") I cannot agree to such a measure—(hisses)—nor do I think it would be advantageous to the workmen. (Cheers and hisses.) The law is now laid down by the most learned law lords of England, Scotland, and America, and with that law I am perfectly satisfied. (A voice, "So you ought.") (Laughter and hisses.)

Mr. McDONALD next asked whether the hon. gentlemen would support a measure that would have the effect of restricting the labour of the young in mines to eight hours in every twenty-four?

Mr. MERRY: I am quite satisfied that it is not for the interests of mine owners

to have the children longer than eight hours in the pits. I really think, Mr. McDONALD, such a measure would not be at all necessary. I think that the old men scarcely stay that number of hours in the pit. (Laughter, applause, and hisses.)—Mr. McDONALD (speaking very loud, and emphatically)—Mr. MERRY very cleverly evades the question. I ask him categorically will he—no or yes?—Mr. MERRY (also loud and emphatically)—Categorically, yes. (Roars of laughter.)—Mr. McDONALD: Will Mr. MERRY support a measure to have the Imperial standard weights on every pit-head in the country, and to order the Inspector of Weights and Measures to inspect these weights as he inspects those of grocers and other persons who sell merchandise? (Applause.)

Mr. MERRY: I was not aware that colliery weights were different from the general weights of the country, but I certainly would support such a measure. I think that colliery weights should be the legal standard weights of the country, and as you say, the same as are used by grocers and other merchants, and the Inspector should at all times be enabled to see that they are so. (Applause.)

Mr. McDONALD: Would Mr. MERRY, in the event of being returned to Parliament, support a measure that will empower the workmen to appoint their own doctors and their own teacher—(hear, hear)—instead of, as at the present time, the employers appointing them and compelling the workmen to pay?—Mr. MERRY: I certainly will do so; and I am astonished that Mr. McDONALD, who is so well acquainted with mining matters, is not aware that this is what I myself have practised all along. (Applause.) If you don't know it, let me tell you now, Mr. McDONALD. (Laughter.)

Having thus, after such a display of girding of the loins, to leave the field completely vanquished on every point which he touched, Mr. McDONALD called on his retainers to follow him, when about a third of the audience complied, woefully chagrined and crestfallen.

We regret that there is no apparent likelihood of Mr. ALEXANDER McDONALD being selected to represent any constituency in the Parliament about to be constituted. For to air his grievances and charges in such an assembly would be to simply establish their hollowness in the presence of many worthy and philanthropic gentlemen, who presently believe in their soundness. Mr. McDONALD has learned from the poet that—

"A bold assertion, next to truth,

Does well."

And practices it on those who will give him credence. Suppose him, in the House of Commons, confronted with an antagonist like Mr. MERRY, who could "Dear Elcho" think of the story of his *protege*, or of his house of cards? The opportunity which Mr. MERRY afforded this modern Goliath of questioning him on matters connected with the welfare of the mining population, in the capital of the coal fields of Lanarkshire, will go far to show every enlightened lover of his fellowman that the accusations brought against the mine owners of this county are misrepresented and intensified by officials who live on the credulity and peace of their dupes. In his replies, Mr. MERRY evinced a consciousness that he was addressing those who were familiar with the whole subject; and the *naivete* with which he replied to the coquetry of his questioner was scarcely less admired than the home thrusts which nonplussed his swaggering assailant. "All's well that ends well"—McDONALD went home discomfited!

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

AUG. 27.—The Iron Trade presents no new feature. It is better, but not very brisk. Orders come in tolerably well, but as a rule, for small amounts. The Hardware Trades are in much the same condition. The tide has fairly turned, but as yet it runs slowly. The works employed in producing railway plant at Wednesbury, Saltley, Smethwick, &c., are busier. The Staffordshire Wheel and Axletree Company, though it does not pay any dividend, seems to be getting into gear. The Metropolitan Wagon Company pays 10 per cent. dividend, although times have been so dull, and it has a large balance at its bankers, for which it receives, perhaps, only 1 per cent. The Birmingham Small Arms Company, however, pay 20 per cent. The *Pull Mail Gazette* announces amongst the features of England's new breech-loading rifle decided upon that it is to be made of steel, which is good news for the proprietors of the patent for making steel tubes by punching.

The Liberals at Wednesbury have at length selected their candidate, and, as was generally expected, Mr. Alexander Brodgen had an overwhelming majority of votes at the meeting of the representatives of the four towns comprising the borough. Mr. Walter Robinson, as he had promised, honourably retired, but Mr. Robert Malcolm Kerr lingers, though he said he would accept the voice of the committee, and though he had very few votes. Dr. Kenealy declined to recognise the committee in which he did not get a single vote. Mr. Brodgen, if elected, as is almost certain, should the Liberals not divide, promises to be a thoroughly good member, really able, alike from experience, ability, and interest, to represent a borough which contains the centre of the Black Country.

In the Staffordshire Potteries, a Board of Arbitration for settling disputes between masters and workmen is being established, and Mr. J. Ayshford Wise, formerly member for Staffordshire, and who paid considerable attention to the subject of courts of conciliation, presided at a meeting on Wednesday evening at Hanley, to support the representatives of the operatives. We seem to be approaching the "constitutional system" in trade disputes, and passing out of arbitrary rule. Let us hope that we shall be able to avoid disputes, or, at any rate, to settle them without social war—a strike.

The Midland Steam-Boiler and Inspection Company has often been noticed in the *Mining Journal*, where the necessity of such an association was insisted upon long before its formation. It continues to proceed prosperously. At the half-yearly meeting, on Wednesday, at Wolverhampton (Mr. J. Barker, of the Chillingham Iron Company, presiding), the report showed profits enabling the directors to recommend a dividend at the rate of 10 per cent., to pay off the balance for preliminary expenses, and carry over 48*l.* to the reserve fund, which is now 6500*l.* The dividend absorbed less than one-fifth of the profits. The directors would now do well to consider the question of reducing their charges, as the company is making great profits, and was not founded as a speculation, but as a means of avoiding accidents. Up to June last 2508 boilers were insured, or under inspection.

The shortcomings of the Factory Acts, as applied to South Staffordshire, have been often noticed in this letter. In the *Pull Mail Gazette* of Tuesday a writer put the case very clearly, by observing—"The simple fact is that by this stroke of legislation Parliament has taxed the well-arranged factory of the enterprising manufacturer, and put a premium on those mechanical appliances by which science relieves human muscle from undue exertion. The educational clauses of the Acts are of little avail, from the natural circumstance that the children who ought to be 'half-timers' are removed by their parents from 'inspected' factories to workshops in which they may find refuge from the minions of the law. The measure, so far as it goes, is good enough, and likely to humanise the 'white-heaten' children of our manufacturing districts; but its signal defect is that by the limitation of the term 'factory' it does not go nearly far enough. Let us hope that among the many duties which await the new Parliament the revision of these enactments will have a place, so that rival manufacturers, whether great or small, may be placed on an equal footing in regard to the treatment of the children and 'young persons' in their employ." To secure this some simplification of the present provisions will be needed. Mr. Durkin, the Sub-Inspector for Wolverhampton, is giving warning that the Workshops Regulation Acts will be enforced, but it is hard to see how at present. The Acts of last session on this subject were passed with too little consideration of the circumstances to be dealt with.

Mr. I. Spooner, stipendiary magistrate, fined Henry Buroott, a butty collier, in the employ of the Parkfield Company, 10*l.* for a violation of the Truck Act. Defendant pleaded guilty. It is singular how seldom a case of this nature comes before a magistrate, in spite of the fact that half of the fine imposed goes to the informer.

The enquiry into the Smoke Consumption question at Hanley has terminated satisfactorily. Just before the Inspector's visit the Town Council took the desired steps, and so all was pleasant. Of course, they would have done the same had no enquiry been undertaken—certainly.

REPORT FROM MONMOUTH AND SOUTH WALES.

AUG. 27.—For some weeks past the Iron Trade of this district has assumed a greater degree of cheerfulness, while the reports from some of the leading establishments are quite satisfactory, and the steady degree of improvement referred to in previous reports is said to be maintained. Last week it was stated that there was an indication of a change in prices being about to take place in makers' favour, and this is now to some slight extent confirmed, as some of the makers who have hitherto accepted contracts on such terms as left little or no margin for a profit, and in some cases at a positive loss, have not only refused those prices, but adhere to an advance. There is a steady increase in the demand for rails both by home and foreign buyers, and there is some probability of the rail mills in the district being tolerably well employed for the next three or four months. This belief has now been considerably strengthened by the copious showers of rain that have of late fallen, and which have entirely allayed the fears of serious consequences resulting from a long drought, which would have been a serious drawback to commercial transactions. Notwithstanding considerable excitement prevails in America respecting the election of President, large quantities of rails continue to be shipped to the United States, and as there has been an accession of orders from the British colonies it is probable that the exports for the present month will show an increase over those of July. Russian engagements have somewhat increased, but the season has too far advanced for anything like the amount of business to be transacted as was anticipated at the commencement of the year. Enquiries from the Continent are not for any considerable quantities, and this, to some extent, may be owing to the oft-repeated cry being again raised that it was not improbable that wa

would break out before long; but at present there does not appear to be any grounds for such fears, as the policy of the French Emperor is evidently one of peace. In the home trade a greater degree of cheerfulness prevails than has been known for some length of time, and strong hopes are now entertained that the trade will before long attain a position that may be termed something like satisfactory. The Lancashire and Yorkshire Railway Company are advertising for tenders for from 2000 to 5000 tons of rails, and as stocks are known to be exceedingly low in the hands of the railway companies it is very probable other companies will speedily follow. There appears to be some signs of a revival in the iron shipbuilding trade, and this will, no doubt, cause an increased demand for plates. Enquiries for pigs of the best brands are steadily increasing, and prices have a tendency to harden. Tin-plate makers have an average number of orders on their books, and the various mills in the district are kept going with something like regularity.

Steam coal proprietors are not doing the amount of business anticipated a week ago, and although there are a number of vessels lying at the local ports, a great many of them are not of the tonnage merchants and shippers require. The wind, also, has not been favourable for vessels to leave the docks, consequently shipments are not so speedily made as could be desired. The principal demand is from the mail packet stations, enquiries for the Mediterranean and French markets having again slightly decreased. There is no material decrease in the output at the collieries, and at some of the principal sidings a large quantity of coal has accumulated. There are more enquiries for house qualities than there has been for several weeks past, but the present position of the trade is far from good.

The employees at the Ynyspenllwch Tin-Plate Works feeling desirous of exhibiting their regard and esteem for their late superintendent, Mr. THOMAS REES, upon his leaving to take charge of the Hendy Tin-Plate Works, at Pontardulais, and of acknowledging their appreciation of his uniform kindness and uprightness during a period of 30 years, in which he was associated with them under the late Mr. Llewellyn Llewellyn, Mr. Henry Strick and a numerous company met at the Masons' Arms Inn, Glais, Clydach, for the purpose of presenting Mr. Rees with a handsome gold watch and chain, appropriately inscribed, and which had been liberally and cheerfully subscribed for by the men employed at the works, and a few other friends. The presentation was made by Mr. John Williams, one of the oldest hands in the works, in a very appropriate speech; after which Mr. Rees replied in a very feeling manner, remarking that he had valued their esteem and regard above all other things, and that he would continue to merit it.

A fatal accident occurred last week at the Glanyea Colliery, the property of Messrs. Sims, Williams, Nevill, and Co. A bankman, named Thos. Richards, accidentally pushed one of the trams to the pit's mouth when the crane was at the bottom, and in endeavouring to stop it both he and the tram fell into the pit. The body was dreadfully mangled, and the poor fellow has left a widow and seven young children totally unprovided for.

On Tuesday an interesting meeting was held in the pattern shop of the Crumlin Viaduct Works, belonging to the Messrs. Kennard. The meeting consisted of the friends of Mr. J. M. WILSON, late cashier of the works, and many of the employees, who had met together for the purpose of expressing their good will towards Mr. Wilson, who was leaving Crumlin on account of ill health. After some complimentary remarks had been made by the Chairman, Mr. Davies, one of the employees, presented Mr. Wilson with a handsome and beautifully-executed portrait of himself, and a purse containing 38 sovereigns, for which Mr. Wilson expressed his thanks, and an interesting account of the progress of the Viaduct Works during the 15 years he had been connected with them.

At the Taff Vale Wagon Company's half-yearly meeting (presided over by Mr. Hutchins) the report stated that the redemption fund had been increased this half-year by the sum of 37687. 19s. 9d., which with the amount uninvested in Dec. 31, 1867, made a total of 99997. 4s. 8d. remaining in the hands of the Taff Vale Railway Company on call at 4½ per cent. per annum, until permanent investment was effected.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

The CWM DARREN MINES (Cardiganshire) have been purchased by a new company, with a view to utilising them to the fullest extent. A party of miners have taken a contract to sink the engine-shaft on the lode a stent of 10 fathoms below the 10 fathom level—the present deepest level in the mine—per a contract of 120l. The lode has improved in yield in the last 5 fathoms sinking from a promising lode to a quantity of silver-lead ore, worth 4 cwt. to 5 cwt. per cubic fathom. It is fair to suppose that this formation of ore will continue to improve, and that good results may be expected without a long delay. Weekly reports of the progress of the works will be published in the Journal, and we heartily wish success to the undertakers of such a valuable work.

WHEAL MARY FLORENCE.—The opening out of this mine is watched with great interest, and although nothing is at present being done on the lode, yet the points in operation are likely to issue in good results. Saw's shaft, which is in course of sinking by nine men, is down over 8 fathoms below the 15 towards a 25 fm. level, where the lode will be again intersected, and should it be found productive, as there is every reason to expect, the shares must have a great rise. There is a good lode in sight at the 15, but cannot be taken away to advantage until the rise now being carried up, by six men, be holed to the deep adit, which will soon be accomplished, and give perfect ventilation to the mine throughout, so that additional hands may be employed to open out productive and profitable ground, which is likely to amply reward the fortunate holders for their perseverance and outlay.

OKEL TOR.—A most important discovery of ore has been made here in driving a western cross-cut in the 65 fm. level. The south lode has been intersected, and getting into a rich course of yellow copper ore; its size is not yet ascertained, but the ore breaking from the end is very solid. This is likely to prove the best discovery yet made, as it shows the ore is making back towards the engine-shaft.

LYD RIVER SILVER-LEAD MINE has been again surveyed by Mr. W. V. Williams, whose experience in connection with mining is well known, and his report is of a satisfactory nature. A shareholder, who accompanied him, says—"It is with great satisfaction I state that, as far as my investigations have gone, I have found everything in strict accordance with the statements issued in the prospectus for the formation of the company, and I do not hesitate in recommending this mine to anyone who may ask my opinion, for it is such a property that will, in all probability, shortly speak for itself in returns and sales of high-price ore."

PENHALE UNITED SILVER-LEAD MINING COMPANY.—A telegram received at the offices on Tuesday morning announced an improvement in the 90 fathom level, south of Phillips's engine-shaft. The lode is reported to be now worth 1½ ton of silver-lead per fathom, and some splendid specimens have been sent to Mr. H. L. Phillips's office, 32 New Broad-street, one rock weighing over a hundredweight. Should this ore ground continue in depth Penhale will not be long in taking a prominent position among successful mines.

BEDFORD UNITED may be considered to have established a new mine on the Tavistock lode, north of the old mine, in the 90 fm. level, where the lode is reported to be worth from 8 tons to 9 tons per fm. In the 75 fm. level the lode is worth 6 tons of good ore per fm. They have only to wait a little longer to open out ground, and they cannot then help paying good and regular dividends. The old mine paid dividends regularly for nearly 20 years. Captain Phillips deserves great credit for the spirit with which the mine has been worked.

THE PRINCESS OF WALES MINE, adjoining the Prince of Wales, is looking well, and producing from the end some fine stones of ore. They intend now to go on with spirit—a 50-in. engine is bought, with 20 tons of boilers. The foundations are out, and all is to be completed in four months. There is no doubt of its proving a good mine.

NANGILES MINE.—The prospects here were never better. A most important improvement is shortly expected in the north cross-cut in the 130 fm. level. The underground manager states—"The driving of this cross-cut will explore one of the most important pieces of mining ground in the county of Cornwall. The lodes which pass through it have proved, in the adjoining mine, the richest that have been found in the county." The adjoining mine is the Consolidated Consols, shares in which once rose to 900l. each, and 47,000l. yearly was paid in dividends, and the dividends paid amounted to about 1,600,000l. All the lodes of this property pass into the Nangiles Mine, which is in 1024 shares only. Investors would do well to turn their attention to this mine at the present low price. There is not a more promising progressive mine in Cornwall. Nangiles shares rose from 6l. to 36l. in 1864, and will do so again. The mine is being closely watched by certain parties.

NORTH LEVANT.—Through the energy and perseverance of all engaged in the working of this valuable old sett they are realising good returns, and the mine looks better than ever; in fact, it is stated that the time is close at hand for making good profits. It must be satisfactory to the adventurers to hear such good news from one of the richest districts in Cornwall, and there is no doubt but that North Levant will prove a rich and lasting dividend-paying property.

GOTHIC.—This little mine is quietly and unobtrusively working its way towards soon becoming one among the best and lasting mines in the county of Cardigan. The lowest level is again becoming productive, and will, it is anticipated, yield up to surface large quantities of ore, the sales of which will now be resumed regularly under its present able management.

AT LOVELL CONSOLS the works are being pushed on with all speed to get under the tin ground passed through in the level above. The ground is congenial for tin, and no doubt by a little more patience the same reward will be reaped as in the neighbouring mines. It is without a doubt a cheap speculation, considering the number of valuable lodes known to pass through the sett.

GREAT SOUTH CHIVERTON.—The lode in the 40 west has further improved, and will now produce 4 cwt. of lead per fm.; and the appearances are decidedly in favour of a further improvement within another week. This end is now getting under the run of lead ground passed through in the level above. The 50 improves as they drive west, and the manager is confident that lead will shortly be met with. In the 20 east they have a lode which will pay for working, and a 40 fm. level east has just been commenced, to get under the rich blende laid on in the 20. Altogether, the mine is looking much better, and will, it may be fairly expected, prove one of the greatest prizes of the district, and thus verify the anticipations of the respected manager.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL UNITY CONSOLS MINING COMPANY, TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 8th day of September next, at Eleven o'clock in the forenoon, at the WHEAL UNITY CONSOLS MINE, in the parish of Gwinnear, within the said Stannaries, either together or in lots, the undermentioned

MINING MACHINERY, MATERIALS, AND EFFECTS, viz.:—
ONE 40-in. cylinder PUMPING ENGINE, with TWO 10-ton BOILERS, complete.
ONE steam WHIM ENGINE, 26-in. cylinder, with ONE 6-ton BOILER. Capstan, vice, and a variety of other articles and effects in general use in mines.
For leave to inspect the same, apply to Mr. THOMAS BASSETT, in charge thereof.
HODGE, HOCKIN, AND MARRACK, Truro.
(Agents for S. T. G. Downing, Solicitor, Redruth).
Dated Truro, August 25, 1868.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the CLOWANCE WOOD MINING COMPANY (LIMITED), TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Monday, the 14th day of September next, at Eleven o'clock in the forenoon, at the CLOWANCE WOOD MINE, in the parish of Crowan, within the said Stannaries, the undermentioned

MINING MACHINERY AND MATERIALS, viz.:—
ONE 60-in. cylinder PUMPING ENGINE, with 10-ton BOILER. Shears, 60 ft. high, with sheaves; 8 arm capstan; horse wheel, with shaft tackle, sheave, pulleys, and stands; 1 12 ft. 10 in. working barrel, 1 14 ft. 11 in. matching piece, 2 tackles, knocker and line, boring bull, small beam and scales, 2 brass bottom sieves for jiggling machine, several cwt. of iron, dry house, carpenter's shop, 12 9 ft. 13 in. pumps, 14 9 ft. 10 in. ditto, 1 6 ft. 13 in. clack seat piece, 1 12 ft. 12 in. working barrel, 1 9 ft. 12 in. windbore, 1 6 ft. 10 in. rod, 1 10 in. H and top door piece, 1 10 ft. 10½ in. pole case, 1 11 ft. 10 in. pole, stuffing box and gland, 100 ft. 12 in. wood rods, 4 pair of strapping or rod plates, knocker line, 20 fms. 2 in. bucket rods, staples and glands, pump rings, rod and flange bolts, and 40 fathoms air pipes; together with the account house and office furniture, and a variety of other articles and effects in general use in mines.
Further particulars may be had on application to the officer in possession, HODGE, HOCKIN, AND MARRACK, Truro.
(Agents for Matthews and Greetman, Solicitors, 68, Lincoln's Inn-fields, London).
Dated Registrar's Office, Truro, August 25th, 1868.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the GARLIDNA UNITED MINING COMPANY, TENDERS will be RECEIVED at the Registrar's Office, Truro, until WEDNESDAY, the 9th day of September next, stating the highest price which will be given for the 24 in. cylinder STAMPING and DRAWING ENGINE, with fly-wheel and cage complete, at GARLIDNA UNITED MINES, in the parish of Wendron, within the said Stannaries.
The above may be inspected on application to SAMUEL VERCOE, in charge thereof.
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.
Dated Registrar's Office, Truro, August 25, 1868.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL LUDCOTT AND WREY CONSOLS MINES COMPANY.—The Registrar of the said Court has appointed TUESDAY, the 8th day of September next, at Eleven o'clock in the forenoon, at the Registrar's Office, in Truro, to SETTLE the LIST OF CONTRIBUTORIES of the ABOVE-NAMED COMPANY, now made out and deposited at the said office.
WM. MICHELL, Registrar of the said Court.
Dated the 26th day of August, 1868.

In Chancery.

BEESTON MANOR COLLIERIES AND IRONWORKS, LEEDS.
TO BE SOLD, BY AUCTION, pursuant to a Decree of the High Court of Chancery, made in a Cause of Dawson v. Cropper, with the approval of His Honour the Vice-Chancellor Sir RICHARD MALINS, by Mr. THOMAS SCRASE BEST (of the firm of Messrs. Hardwick, Best, and Young), the person appointed by the said Judge, at the White Horse, in Leeds, on Wednesday, the 9th day of September, 1868, at Two for Three o'clock P.M. precisely, THE IMPORTANT COLLIERIES AND IRONWORKS, late the property of Messrs. A. Harding and Co., at BEESTON, held under several leases from the Lords of the Manor of Beeston and Sir Thomas Beckett, the trustees of Matthew Bateson, Esq., and others, comprising the following BEDS of COAL and IRON-STONE—namely,
The BEESTON BED of COAL, of which about 85 acres were ungot in Oct., 1867
The BLACK BED of COAL, of which about 145 acres were then ungot.
The CROW COAL.
Also the UPPER and LOWER BEDS of IRONSTONE, one of them lying above the Beeston Bed of Coal, and the other lying between the same and the Black Bed of Coal.
Together with the above Collieries and Ironworks, will be sold the ENGINES, RAILWAYS, ROLLING STOCK, and PLANT of every description.
Particulars and conditions of sale, and further information, may be obtained, gratis, in London, of Messrs. HAWKINS, PATERNON, SNOW, and BURNBY, of No. 40, Chancery-lane; Messrs. CHESTER and URQUHART, of Staple Inn; and in the country of Messrs. DIBB and ATKINSON, Solicitors, Butt's-court, Leeds; Messrs. BRETT, HARRISON, and KEARSEY, Solicitors, Manchester; Messrs. HARDWICK, BEST, and YOUNG, Auctioneers, Leeds; and at the place of sale.
FREDC. ERS. EDWARDS, Chief Clerk.
Dated this 23d day of July, 1868.

GREAT WHEAL FORTUNE, BREAGE, CORNWALL.

THE WHOLE of the MACHINERY and MATERIALS, consisting of a 40 in. cylinder STEAM PUMPING ENGINE, 24 in. cylinder STEAM WHIM, BOILERS, PITWORK, &c., on the Carnmeal part of this mine, are hereby OFFERED FOR SALE, in One Lot.
Several of the present shareholders would join a new party to continue the operations, and a new lease can be obtained.
By driving a cross-cut south about 8 fms. in the bottom or 150 fm. level, a lode will, it is considered, be intersected, which must in depth meet the Carnmeal lode, and if the former should be found productive of tin, every reasonable conclusion may be drawn, from corresponding results of the locality, that a profitable mine may be quickly opened up. There are also other points of interest and promise.

The agents at the mine will afford every facility for inspection, and further information may be obtained on application, by letter, to the purser, Mr. T. W. ROBINSON, 11, Penrose-terrace, Penzance.
Tenders for the above will be received by the committee, at Crotch's Hotel, Hayle, on Tuesday, 1st September, at Three o'clock P.M.
Dated Great Wheal Fortune, Aug. 19, 1868.

STEAM-BOILERS made by WILLIAM WILSON, LILYBANK BOILER WORKS, GLASGOW, on the most improved principles, for home and export. All boilers made of the best material and workmanship, proved and warranted tight under a high pressure, and delivered at any railway station or shipping port in the kingdom at moderate rates. Lithograph of boilers forwarded post-free on application.

COPPER MINE AUCTION.

On the 28th SEPTEMBER next, at Eleven o'clock in the forenoon,

THE REICHENBACHER COPPER MINE

(Situate at three miles distance from the Bensheim Railway Station on the Maine-Neckar Railway)

Will, with the BUILDINGS, MACHINES, &c., &c., thereto appertaining, be DEFINITELY PUT UP FOR SALE, BY PUBLIC AUCTION.

Further particulars can be had at the mine of Surveyor BEUTEL; or by letter (post paid) of Hof-Gerichts-Advocat BUCHNER II., Darmstadt.
Zwingenberg, the 20th July, 1868.

Now ready, price 5s., by post 5s. 4d.,

STATISTICS OF THE MINES OF CORNWALL AND DEVON, WITH OBSERVATIONS UPON THEM.

By THOMAS SPARGO, STOCK AND SHAREDEALER, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

I beg to inform the mining interest that my work, under the above title, for 1866 and 1867 is now ready. It contains the following particulars—viz., the geological position, present prospects, names of purser, manager, and secretary, with statement of the annual returns of each mine during the last two years, and of total dividends paid to the present time. The work is illustrated by a map of Cornwall and Devonshire; geological district maps, divided into eight sections, in which will be shown the boundary lines of each parish, height of hills, sources of rivers, &c.; maps of St. Just, St. Ives, Marazion, Helston, Gwinnear, Alverton, Bodmin, Liskeard, Devon Great Consols, Ashburton, and Exmouth

mining districts, showing boundary lines of each property, with the lodes, &c., traversing them.
It also contains transverse and longitudinal sections of Dolcoath Mine (kindly supplied by the late Captain Charles Thomas); section of workings in Botallack Mine (supplied by the manager, S. H. James, Esq.); longitudinal sections of workings upon the main lode in Great Wheal Vor and Treasavean Mines; geological map of the Fowey district (supplied by Major Davis, R.M.); historical account of the Devon Great Consols, and of all the principal mines in the two counties.

MINING MACHINERY AND MATERIALS FOR SALE, BY AUCTION, AT GRAMBLER AND ST. AUBYN MINES, IN THE PARISH OF GWENNAP

(Within one mile of the Redruth Station of the West Cornwall Railway).
MESSRS. MICHELL AND SON (Auctioneers, of Littlebeside) are instructed to SELL, BY AUCTION, on Wednesday, the 9th day of September next, at

GRAMBLER AND ST. AUBYN MINES, THE WHOLE of the MACHINERY and MATERIALS thereon, consisting of—
An excellent 60 in. cylinder PUMPING ENGINE, 10 ft. stroke in cylinder and 9 ft. in shaft, and BOILER about 13 tons.
An 18½ in. cylinder WINDING ENGINE, 4 ft. stroke, with cage and fly-wheel, and BOILER about 7½ tons.
Horse wheel and shaft tackle, complete.
A quantity of 11, 10, 9, and 8 in. pumps; 10, 9, and 6 in. plunger poles, with stuffing box and glands to match; 9½ in. working barrels, 11 ft. long.
2 10 in. H and top doorpieces. 3 pairs strong fagotted caps.
19 in. H and top doorpiece. 10 pairs strong fagotted rod plates.
1 9 in. doorpiece, 6 ft. long. 6 pairs strong rolled ditto.
1 8 in. doorpiece, 3 ft. long. Ironwork for balance bob.
Machine and horse wheel kibbles; staples and glands; rod pins; large fagotted yokes; bevels; clack valves; large double-power winch; 2 large lifting screws; pair large blocks; 36 in. smith's bellows; mandril; smith's tools; large beams and scales; brass and iron weights; large shieves; an excellent lot of 9-16ths chain; miner's dial; and a great variety of other mining materials; also the account-house furniture, consisting of office desk, cupboards, large settle, set of dining tables with circular ends, chairs, large cooking apparatus, and all the culinary requisites.
The sale will commence at Twelve o'clock at noon precisely. It being desirable to dispose of the whole at this sale, a punctual attendance is solicited.
Further particulars may be obtained at the mines; or from the purser, Mr. F. W. DABB; or of the Auctioneers, at Littlebeside, or Church Cottage, Perran-zabuloe.—Dated Littlebeside, Aug. 25, 1868.

EXTENSIVE AND VALUABLE MINERAL PROPERTY, MONMOUTHSHIRE.

MESSRS. HUMBERT AND COX are favoured with instructions from the proprietors to SELL, BY AUCTION, at the New Auction Mart, London, on Wednesday, the 23d day of September next, at Two o'clock, in Three Lots, all the VALUABLE MINERALS under about 800 acres of land, situate in the parishes of LLANHILLETH and TREVEETHIN, in the county of MONMOUTH, comprising—

COAL AND IRONSTONE, LIMESTONE, AND FIRE-CLAY, together with the surface thereof, consisting of a FARM, of about 97 acres, with HOUSE and HOMESTEAD, called BLAENCUFFIN FARM, and the residue mountain pasture, situate near the town of Pontypool, and in immediate proximity to the Llanhilleth Station and Aberbeeg Junction of the Western Valleys Railway. The tenure of the whole is freehold, land tax redeemed.
May be viewed. Particulars, with conditions and plans, are being prepared, and will be sent (free by post) on application being made at the Auction Mart; of Messrs. R. S. TAYLOR and SON, solicitors, 3, Field-court, Gray's Inn; Messrs. HUNTER, GWATKIN, and HUNTER, 9, New-square, Lincoln's Inn; or to Messrs. HUMBERT and COX, estate agents and surveyors, 88, St. James's-street, London, S.W.

SALE OF IMPORTANT ANTHRACITE COLLIERIES AND MACHINERY IN SOUTH WALES.

TO BE SOLD, BY PRIVATE CONTRACT, THE VALUABLE LEASE of the

CARWAY AND DUFFRYN COLLIERIES, Situate in the parish of LLANGENDINE, in the county of CARMARTHEN, together with the valuable PLANT, MACHINERY, and MATERIALS now on the premises.

The lease under which the collieries are held is for 60 years (less one day), from 25th December, 1859, at a royalty of 9d. per ton, and the property comprises about 20 acres at surface at a rent of £16 per annum, and the minerals under 210A. 3R. 22P.

The MACHINERY includes a 25 in. cylinder, 6 ft. stroke, vertical WINDING ENGINE, with winding gear, complete; a 14 in. cylinder 2 ft. 6 in. stroke, horizontal PUMPING ENGINE, with pumps, pump rods, &c.; STEAM BOILERS, and all other necessary apparatus.
The collieries are capable, with a small outlay, of producing from 100 to 200 tons daily.

The property is about five miles from the South Wales Railway, and the shipping port of Barry Port, and the Barry Port and Gwendraeth Valley Railway Company are about constructing a line to the collieries, which will greatly improve the property.

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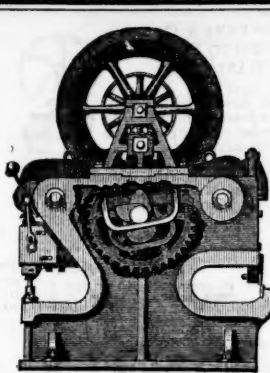
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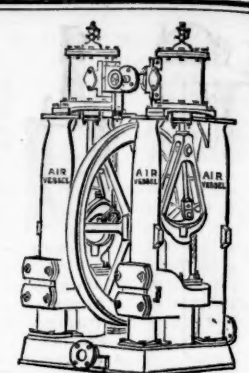
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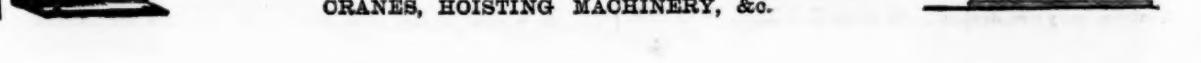
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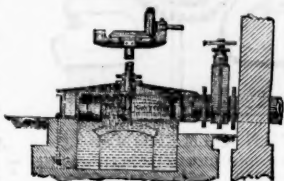




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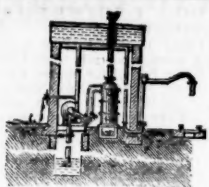
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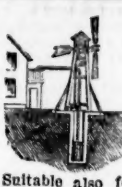


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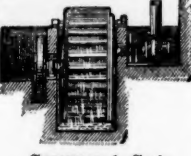
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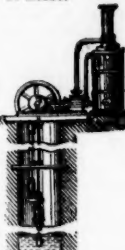


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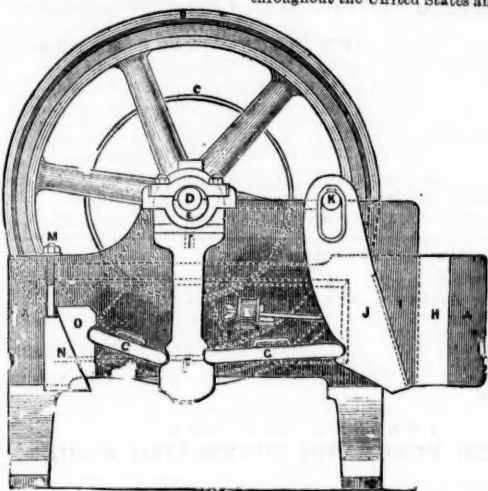
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BLAKE'S PATENT STONE BREAKER,

In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor WOOD having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

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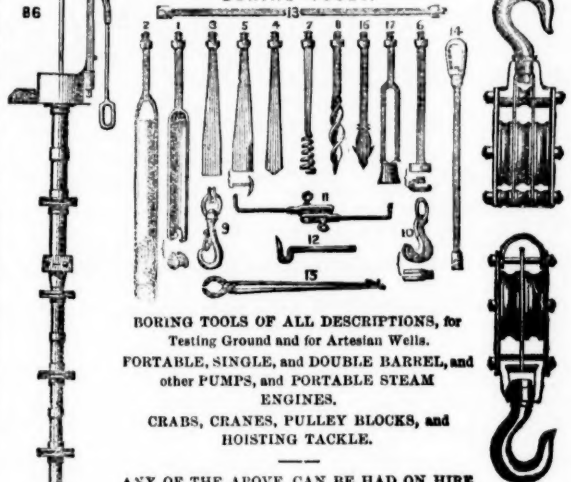
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200	Botallack, c. St. Just	91 5 0	—	—	498 15 0	5 0 0	May 1866
4000	Brookwood, c. Buckfastleigh	1 11 0	—	—	10 10 0	0 2 6	April 1868
1000	Brookwood, c. Cardigan*	12 0 0	—	—	10 1 0	0 6 0	Aug. 1868
5094	Buwalde Consols, s-t, Cardigan*	4 0 0	—	—	0 5 0	0 5 0	June 1868
6400	Cashwell, c. Cumberland*	2 10 0	—	—	0 1 6	0 1 6	Aug. 1866
916	Cargill, s-t, Newlyn	15 5 7	22	21 23	14 15 0	0 10 0	July 1868
509	Creechbrow and Penkelt, c. t.	—	—	—	2 5 0	1 5 0	April 1868
867	Cwm Erlyn, c. Cardiganshire*	7 10 0	—	—	28 8 0	0 15 0	July 1868
128	Cwmystwith, c. Cardiganshire	60 0 0	—	—	381 10 0	2 0 0	Dec. 1867
280	Darwen Mines, s-t, Durham	300 0 0	—	—	177 0 0	2 10 0	July 1868
1024	Devon Gt. Consols, c. Tavistock†	1 0 0	425	415 425	1109 0 0	7 0 0	July 1868
656	Ding Dong, c. Guisul†	49 14 6	15	—	0 10 0	0 10 0	Sept. 1867
358	Dolcoath, c. t, Camborne	128 17 6	—	—	852 10 0	4 0 0	Aug. 1868
6144	East Caradon, c. St. Cleer†	2 14 6	2 1/2	2 1/2	14 11 6	0 2 0	July 1867
300	East Darren, c. Cardiganshire*	32 0 0	—	—	158 10 0	2 0 0	May 1868
128	East Pool, c. t, Pool, Illogan	24 5 0	—	—	435 0 0	2 10 0	July 1868
1906	East Wheal Lovell, c. Wandron	3 0 0	—	—	4 1 6	0 10 0	May 1868
2800	Foxdale, c. t, Isle of Man*	25 0 0	—	—	71 10 0	0 10 0	July 1868
5000	Frank Mills, c. t, Christow	3 18 6	—	—	3 5 6	0 5 0	Feb. 1866
3950	Gawton, c. Tavistock	3 10 6	—	—	0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, c. t, Isle of Man*	4 0 0	17 1/2	17 1/2	8 15 0	0 10 0	June 1868
5908	Great Wheal Vor, c. t, Helston†	40 0 0	14 1/2	12 13	13 3 6	0 7 6	June 1868
1024	Herodsfoot, c. t, near Liskeard†	8 10 0	40	39 41	46 10 0	1 10 0	June 1868
6000	Levanth Down, c. Calstock†	5 10 6	—	—	0 10 0	0 5 0	April 1866
165	Levanth, c. t, St. Just	10 8 0	—	—	1095 0 0	2 0 0	July 1868
400	Lisaburgh, c. Cardiganshire	18 15 0	—	—	507 10 0	3 0 0	May 1868
3000	Mace-y-Safn, c. Flint*	20 0 0	—	—	3 15 0	0 15 0	April 1868
9000	Marke Valley, c. Caradon	4 10 6	7 1/2	7 1/2	4 9 0	0 4 6	July 1868
3000	Minera Boundary, c. t, Wrexham*	1 0 0	—	—	23 0 0	0 6 0	Mar. 1866
1800	Miners Mining Co., c. t, Wrexham*	25 0 0	160	165 175	239 13 0	6 0 0	Aug. 1868
20000	Mining Co. of Ireland, c. t, c. l.	7 0 0	16 1/2	—	—	9 p.c.t.	July 1868
40000	Mynydd Iron Ore†	3 5 0	—	—	0 8 6	0 2 0	Mar. 1868
200	Parys Mines, c. Anglesey*	26 0 0	—	—	160 0 0	2 10 0	Mar. 1868
12800	Prince of Wales, c. t, Calstock	0 12 6	13 1/2	13 1/2	0 7 6	0 1 0	Aug. 1868
1120	Providence, c. t, Uny Lelant†	10 6 7	23	20 22	85 2 6	0 10 0	June 1868
512	South Caradon, c. St. Cleer†	1 5 0	375	360 370	592 10 0	6 0 0	July 1868
6000	South Darren, c. Cardigan*	3 6 6	—	—	0 11 0	0 1 6	May 1868
937	South Wh. Croft, c. t, Illogan	24 10 0	15	13 15	0 10 0	0 10 0	June 1868
496	So. Wh. Frances, c. t, Illogan†	18 18 9	18	17 19	374 13 6	2 0 0	Mar. 1868
508	Summer Hill, c. t, Mold	3 13 6	—	—	2 5 6	0 5 0	Feb. 1868
6000	Tinroff, c. t, Pool, Illogan†	9 0 0	14	13 13 1/2	19 11 0	0 5 0	May 1868
2000	Trumpet Cons., c. t, Helston	11 10 0	—	—	13 0 0	0 10 0	June 1868
3000	W. Chiverton, c. t, Perranzabuloe†	10 0 0	62	61 62	29 7 6	2 0 0	Aug. 1868
5000	West Godolphin, c. t, Breage	0 1 0	—	—	0 2 0	0 2 0	Dec. 1867
400	W. Wheal Seton, c. Camborne†	47 10 0	165	150 160	605 0 0	5 0 0	Aug. 1868
512	Wheal Basset, c. t, Illogan†	5 2 6	60	59 61	632 10 0	1 0 0	June 1868
1024	Wheal Friendship, c. t, Tavistock	20 0 0	—	—	300 10 0	0 10 0	Nov. 1866
512	Wheal Kite, s-t, Kea	10 10 0	—	—	—	1 0 0	July 1868
4295	Wheal Kitty, c. t, St. Agnes	5 4 6	2 1/2	2 1/2	8 9 0	0 2 0	Aug. 1868
1024	Wheal Mary Ann, c. t, Menheniot†	8 0 0	20	19 20 1/2	65 2 6	0 17 6	June 1868
80	Wheal Owles, c. t, St. Just	70 0 0	—	—	350 13 0	7 10 0	Feb. 1868
396	Wheal Seton, c. t, Camborne	58 10 0	55	47 1/2 52 1/2	254 15 0	2 0 0	Feb. 1868
3000	Whitewell Lead, Clitheroe*	0 5 0	—	—	1 0 0	0 10 0	Dec. 1867
17000	Wicklow, c. t, Wicklow	2 10 0	12 1/2	—	48 16 0	0 6 0	April 1868

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20000	Australian, c. South Australia†	7 7 6	—	—	0 10 0	0 10 0	Aug. 1867
15000	Cape Copper Mining†	7 0 0	—	—	3 2 6	0 10 0	Feb. 1868
30000	Central American Association†	1 10 0	—	—	1 1 1/2	—	—
76162	Don Pedro North del Rey†	0 14 0	3 1/2	3 3 1/2	1 0 3	0 3 0	July 1868
7000	English and Australian, c. t.	2 10 0	—	—	—	0 1 0	Feb. 1868
25000	Fortuna, c. Spain*	2 0 0	—	—	1 9 4	0 2 0	Mar. 1868
20000	Gen. Mining Assoc., c. t, Menheniot†	2 0 0	—	—	23 0 0	0 15 0	June 1867
10000	Gonnesville, c. t, £1000 £5 pd., 5000 £4 pd.]	—	—	—	10 p.c.t.	—	July 1867
68000	Kapunda Mining Co., Australia†	1 0 0	—	—	0 1 4	0 6 0	May 1868
15000	Linares, c. Spain*	3 0 0	—	—	11 11 8	0 3 4	Mar. 1868
50000	Panuello, c. Chile†	3 0 0	—	—	10 p.c.t.	—	Yearly.
6000	Peel River Land and Mineral†	100 0 0	—	—	—	—	—
10000	Pontblassat, s-t, France†	20 0 0	—	—	5 6 2	0 11 11	May 1868
100000	Port Phillip, c. t, Clunest	1 0 0	1 1/2	1 1/2	1 2 0	0 1 0	July 1868
12000	Scottish Australian Min. Co.†	1 0 0	—	—	8 p.c.t.	—	May 1868
15000	Gold del Rey, Brazil†	15 0 0	20	—	81 10 0	4 5 0	Dec. 1867
13500	Vancouver, c. t, St. Just	6 0 0	—	—	1 10 6	0 6 0	May 1868
50000	Victoria (London) £2000 £1 pd., 25000 £2 pd.]	—	—	—	0 9 7	0 7 0	July 1868
40000	West Canada Mining Co.*	1 0 0	—	—	0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
5000	Anglo-Argentine, s, Argentine Republic*	1 0 0	—	—	..
10000	Anglo-Brazilian, s, Argentine Republic*	0 10 0	—	¾. ½ ¾	..Nov. 1866
12500	Anglo-Italian, g,†*	0 10 0	—	—	..Jan. 1868
20000	Australian United, g	1 0 0	—	—	..Mar. 1868
2464	Burra Burra, c, South Australia†	5 0 0	—	—	..
20000	Capula, s, Mexico†*	1 7 6	—	2 2½	..May 1868
30000	Chontales, g, s, Nicaragua†	5 0 0	—	2½. 2 2½	..Mar. 1868
12000	Cobre Copper Company, c, Cuba†*	35 10 0	—	—	..Jan. 1868
10000	Coplaio Mining Company, Chili†	16 10 0	—	—	..
10000	Coplaio Smelting, Chili†	10 0 0	—	—	..April 1866
3000	Copper Miners' Co. of South Australia† (150 £100 pd.)	150 £70 pd.]	—	—	..Nov. 1866
15000	Chileo Silver Mining and Reduction Company†	5 0 0	—	—	..Nov. 1866
40000	Forster Copper Mining Co. of Western Australia	2 0 0	—	—	..Fully pd.
50000	Frontino and Bolivia, g, New Granada†	1 17 6	—	¾. 14s. 16s.	..May 1868
10000	Great Barrier Land, Mining, &c., New Zealand	5 0 0	—	—	..Fully pd.
80000	Great Northern, c, South Australia†	1 11 6	—	1 1½	..Sept. 1862
50000	Javali, g, Nicaragua	1 0 0	—	—	..June 1868
7927	Lusitanian (Portugal)†	3 0 0	—	—	..
83640	Marikulta, g, s, New Granada	1 0 0	—	—	..Feb. 1868
12500	Nerbudda Coal and Iron, India†	6 0 0	—	—	..Dec. 1867
51000	New Quebrada, c, Venezuela†	3 0 0	—	—	..
5000	Orea, c, New Zealand	3 0 0	—	—	..Fully pd.
80000	Pestana de S. Paulo, g, Italy†	2 17 6	—	2½	..
10178	Rossa Consolidated, f, [5000 £5 pd., 4178 £2 10s. pd.]	—	—	—	..May 1866
10000	Rosh Grande, g, Brazil†	0 14 0	—	1 .16s. 18s.	..June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	—	—	..Sept. 1866
10000	San Roque, l, Spain	5 0 0	—	—	..Fully pd.
10000	Sao Vicente, g, Brazil	0 10 0	—	—	..
10000	Taquaril, g, Brazil*	0 5 0	—	—	..Oct. 1867
6000	Terresu, s-l, Isle of Sardinia	2 0 0	—	—	..
43174	United Mexican, s, Mexico†*	28 5 0	—	—	..May 1868
30000	Val Antigua, g, Italy*	1 2 0	—	—	..
5000	Val Sassano, s, c, l, Italy†	1 0 0	—	—	..Aug. 1867
45000	Victor Emanuel, g, Italy*	1 0 0	—	—	..Fully pd.
20000	Washoe, c, Nevada†	5 0 0	—	—	..Fully pd.
80000	Worthing, c, South Australia†*	1 0 0	—	—	..Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—	—	..Fully pd.
45000	Yudanamatana, c, South Australia†*	3 0 0	—	4½. 4½ 4½	..Fully pd.